

# AMERICAN GAS ASSOCIATION MONTHLY

**JULY-AUGUST • 1938**

**New National Gas Advertising Plans**

**T. J. STRICKLER**

**What Is the CP Gas Range Program?**

**N. T. SELLMAN**

**Gas for Summer Air Conditioning**

**W. F. FRIEND**

**Architects Win \$13,700 in Prizes**



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*The Information You Want, When You Want It!*

**S**OIL CORROSION AND PIPE PROTECTION," by Dr. Scott Ewing. An authentic, up-to-date corrosion manual, bringing together in one volume everything a distribution man needs in helping him solve his Corrosion problems. Corrosive action of various types of soil in the United States . . . The principles of survey instruments, methods and equipment used in Cathodic Protection. Curves . . . charts . . . tables . . . all right at your finger-tips. An indispensable aid in your daily Corrosion work . . . no time wasted searching through volume after volume . . . checking . . . and re-checking what you have read. Everything is right before you in this one compact volume.

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## **AMERICAN GAS ASSOCIATION**

420 LEXINGTON AVENUE

NEW YORK CITY

**GAS IS YOUR QUICK, CLEAN, ECONOMICAL SERVANT**

# AMERICAN GAS ASSOCIATION MONTHLY

## *Contents for July-August 1938*

VOL. 20 No. 7

National Advertising Plans for 1938-39.....	243	Affiliated Association Activities.....	269
T. J. STRICKLER		Convention Calendar.....	270
CP Range Program.....	249	How Other Industries Are Personalizing Their	
What Is the CP Gas Range?.....	250	Service .....	271
N. T. SELLMAN		F. C. BUSCHER	
What Leaders Say About the CP Range Pro-		Sales Promotion Keynote of Home Service	
gram .....	252	Conference and Training Course.....	273
How the CP Range Will Be Promoted.....	254	JESSIE McQUEEN	
16,000 Employee Suggestions and Still Going		Absorption Refrigeration for Summer Air Con-	
Strong .....	257	ditioning with Gas.....	275
W. O. HODGDON		W. F. FRIEND	
\$13,700 Awarded to Architects in A. G. A.		Conference Stresses Commercial and Indus-	
Competition .....	259	trial Gas Sales Topics.....	278
Hartford First to Enter All-Gas Home in Build-		Measurement of Fuel Size.....	280
ers' Contest.....	261	V. J. ALTIERI	
Association's Nominating Committee Reports		Production and Chemical Men Review Oper-	
for 1938-39.....	262	ating Problems.....	283
Plumber-Utility Cooperation in Connecticut....	265	Tentative Requirements Drafted for Commer-	
A. B. DIBBLE		cial Cooking Equipment.....	284
Atlantic City Again to be Host to A. G. A.		FRANKLIN R. WRIGHT	
Members .....	267	Personnel Service.....	288

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# Our Second Honeymoon

BEGAN WHEN WE GOT RID OF THE 4 BIG JOBS!

THE other day I carried Alice over the threshold of our home the way I did when we were first married 20 years ago. We were beginning our second honeymoon!

It all started last Spring when I said to Alice: "We ought to get more enjoyment out of life before we become a pair of old fogies. Couldn't we modernize this house so it wouldn't be so much work?"

"Frank," she answers, "there are 4 big jobs connected with housekeeping that keep us tied down. If we could find a way to lighten them—life would be a song."

Well—I looked into it, and learned this wonderful good news! There's been a revolution in gas equipment and in the cost of using gas. Millions of smart folks have said "good-bye" to the 4 big jobs. Gas will handle them—do it automatically and inexpensively.

Now GAS does these jobs in our house, and Alice and I are having a second honeymoon. We've got the leisure to do the things we've always wanted to! Weren't we foolish not to have done this years ago!

Learn how Gas can do the 4 Big Jobs in your home. Ask your Gas Company or Dealer today!



Look for this Seal of Approval of the Testing Laboratories of the American Gas Association when you buy gas equipment. Appliances bearing this seal comply with national requirements for safety, durability and efficiency.



1. GAS FOR COOKING

THE COOK IS A LADY OF LEISURE with an automatic Gas Range. Cooking is faster—cleaner. Broilers are smokeless. Oven insulation keeps kitchen cool!



2. GAS FOR REFRIGERATION

HOME-MADE ICE CREAM—Mmm! You'll appreciate the many modern features of an automatic Gas Refrigerator. No moving parts to wear. Gas Refrigerators are silent, have long life. Upkeep is gratifyingly low.



3. GAS FOR HOUSE HEATING

AN EXTRA "FUN ROOM"—because a Gas Furnace is so trim, clean and quiet you can turn the basement into a playroom. Gas is the only completely automatic heat. Nothing to tend—no fuel to order or store. No dust, smoke, or noise. Installation is simple... can be made quickly.



4. GAS FOR WATER HEATING

HUBBY'S HAPPY when there's plenty of hot water. A Gas Water Heater assures it—and inexpensively!

# GAS

4

COOKING  
WATER HEATING  
REFRIGERATION  
HOUSE HEATING

First "Four Big Jobs" Advertisement in the 1938-39 national advertising series

# AMERICAN GAS ASSOCIATION MONTHLY

*James M. Beall, Editor*

## National Advertising Plans for 1938-39

**S**TARTING with insertions in the September issues of magazines, the gas industry launches the third consecutive year of its national co-operative advertising program. There has not been, nor is there contemplated, any departure from the enabling resolution authorizing the program and adopted by the Association's Executive Board, October 17, 1935. Under the terms of this resolution the objective of the program is defined as the promotion of gas as a modern fuel for domestic, commercial and industrial purposes. The resolution also specifies that media of national circulation are to be used.

**By T. J. STRICKLER**

**Chairman, Committee To Conduct  
National Advertising**

justifiably proud that the 1938-39 program can get under way for its third year with a reduction of only two per cent in the total amount subscribed as compared with the previous year.

Not a few companies have expressed an eagerness to increase their contributions if other companies follow suit. This is a further practical indication of the industry's rejuvenated spirit, and its strong belief in the pulling power of advertising.

In discussing the program with others I have noted that altogether too few have a well-rounded understanding of our activities as a whole. Too often the program is appraised solely in terms of the magazine advertisements. The supplemental publicity activities are often overlooked. So is the radio set-up and the tremendously effective tie-in and supporting advertising, all of it pegged on the national slogans and themes, and sponsored locally by companies who utilize every opportunity to identify themselves with the national drive.

From the inception of the program, Herman Russell, president of the Rochester Gas & Electric Corporation, Rochester, New York, has served as chairman of the Committee on National Advertising, the fund-raising body.

Direction of the program still remains, with one exception, in the hands of those originally selected by some 700 participating companies as their representatives. These constitute the membership of the Committee To Conduct National Advertising. All detailed plans in connection with the operation of the program are approved and set in motion by this committee. Another committee, known as the Subcommittee on Approval of Domestic Gas Copy, works in collaboration with the advertising agency in making the program adhere in all of its various phases to the instructions received from the main committee. The commercial and industrial gas advertising is supervised by the Advertising Committee of the Association's Industrial Gas Section. This simplified organization set-up has proved to be eminently satisfactory.

For a quick review of the scope of the program the reader is referred to the tabulation appearing on page 244. Perhaps the most significant figure is that showing the amount of money raised for the coming year's campaign—powerful evidence, in my opinion, of the enthusiasm of the gas industry for this nationwide effort to tell its story to the American public. Considering prevailing business conditions, we are

For example, our advertising messages for the first year of this campaign have appeared in magazines of 13,770,000 total circulation. This year the total circulation of our magazine list is 17,498,000. That represents a sizeable spread for the funds placed at our disposal. In the same period of time, however, forty different stories on gas appliances have appeared in national magazines. Some of these stories have been full-length features, fully illustrated. The aggregate circulation of the magazines in which these stories appeared was 66 million copies—double the circulation of magazines carrying our advertisements.

Even more significant from the circulation point of view is the reception given to our newspaper stories. Within the two-year period our advertising agency has collected 8,690 clippings. These were in newspapers of a combined circulation of 889,482,000. No account is made of thousands of incidental stories on gas which have been motivated or influenced by the publicity activities supplementing the national program. So much for publicity.

We have not overlooked opportunities existing in radio.

For example, 125 different radio stations since July, 1936 have broadcast 565 special programs setting forth the advantages of gas fuel and modern gas appliances. There is not a single state that has not at one time or another used one of these programs, and many stations use them as a regular feature. No radio time cost was involved—merely multigraphing and postage.

During last year alone, a radio program sponsored by one of the national magazines carrying our advertising, featured 79 different talks on modern gas appliances. The areas reached by the stations broadcasting these talks contained 13,878,000 radio sets. Thus radio is a most important activity to be considered in any estimate of what the gas industry is doing today to sell itself to the American public.

Up to this point I have referred specifically to the national advertising

in person at company offices for it. In addition, some 625,000 individuals have also applied in person for copies of the Chef's supplemental list of recipes. The thousands of letters received by the Chef and by participating companies leave no doubt that this program has more than met every claim made for it.

Another radio activity of outstanding advertising merit, sponsored by Servel, Inc., began on April 7 of this year with a thirteen weeks' program of the March of Time over 44 stations of the National Broadcasting Company. Each program contained a three-minute talk on the gas refrigerator.

To those who are in the "know" it is an established fact that the gas industry is telling its story more widely and to more persons and in more ways at the present time than ever before.

but it cannot be said, when all facts are considered, that the industry is not a substantial and steady user of advertising space and an active supporter of radio and publicity. To make this point clear, consider the gas industry's combined appropriations for magazine advertising. With the national campaign and increased advertising on the part of gas appliance manufacturers the industry's total magazine advertising expenditure has been stepped up from \$415,000 in 1935 to \$1,250,000 in 1937. These figures represent real progress for our industry.

We should not neglect to mention the indirect but nonetheless valuable advertising given our product and our appliances by well-known manufacturers of floor coverings, building materials and several other products who are eager, now that we have joined the advertising parade, to associate

### THREE-YEAR COMPARISON OF NATIONAL ADVERTISING

	1936-37	1937-38	1938-39
Participating Companies.....	694	717	708
Meters in Service.....	11,369,414	11,050,000	10,762,351
Subscriptions.....	\$454,776.00	\$442,000.00	\$433,994.00
Magazines Used.....	26	32	32
Number of Insertions.....	188	207	218
Total Circulation.....	13,770,394	18,442,000	17,498,843

program sponsored by some 700 operating units in the industry, but no matter how important that program may be, it does not by any means embrace the complete story of what the gas industry is doing to sell itself to the public. For example, there is the Mystery Chef radio program, now about to complete its third year on the air. The twice a week talks made over the split red network of the National Broadcasting Company by the Mystery Chef have exerted a powerful influence on the public acceptance of gas fuel and modern gas appliances by thousands of listeners.

Some 2,200,000 of the Chef's "fans" have called at the offices of participating gas companies for a copy of his recipe book. In radio circles this response is considered to be exceptional, in view of the fact that the distribution of the book is restricted to customers and that they must call

That the national advertising campaign has been a powerful incentive in this direction is not to be denied.

The fact should be made known that during the past year nine appliance manufacturers advertised their products in magazines having a total circulation of 82 million copies. That is a volume of advertising which we appreciate. To realize just what it means let me interpret it in one small particular. Our slogan for the current year, "Gas Is Your Quick, Clean, Economical Servant" appeared 100 million times in the national advertising program. Two appliance manufacturers also advertised the slogan in national magazines. Their advertisements included 46,268,000 mentions of the slogan. That is the kind of supporting advertising that really means something.

The gas industry may or may not be doing an adequate advertising job,

themselves with us. In some instances, the circulation of this indirect advertising sponsored by others is far greater than the circulation of all the magazines carrying the combined advertising of the gas industry.

As an industry we are no longer overlooking the tremendous influence on current styles and buying habits exerted by the motion picture industry. In this connection, recent productions featuring the use of strictly modern gas appliances in important dramatic scenes have done our business no end of good. Almost 300 gas companies have taken occasion, at the suggestion of Association Headquarters, to tie-in their promotional efforts with the showing of films with gas appliances in them. In every case theater audiences, prior to seeing these films, were advised of the fact that Hollywood prefers to use modern gas appliances in its most glamorous film set-

tings. At the moment we are not only getting a break in the movies, but our appliances occupy a decidedly preferred position.

With the foregoing introduction, which I hope will serve to give a better knowledge of what the industry is doing to promote itself nationally, I come now to the plans for the national advertising program for 1938-39, approved by the Committee To Conduct National Advertising at its meeting in Chicago, June 1. As stated previously there will be no major changes in the three branches of our activity, namely, the advertising of domestic gas appliances, the supplemental publicity activities and commercial and industrial gas advertising.

McCann-Erickson, Inc., of New York, will handle the domestic gas program with an appropriation of \$400,000, the same as last year. The appropriation for publicity is \$20,000. Ketchum, MacLeod & Grove, Inc., of Pittsburgh, will handle the commercial and industrial gas advertising, the budget allotted for this purpose being \$30,000 with the provision that all funds raised in excess of \$440,000 for national advertising up to 10% of the total subscriptions received be allocated to industrial and commercial gas advertising.

With certain incidental changes, the lists of magazines used to carry our story last year remain the same for the coming year. If there is any departure which can be called such, it is in the copy treatment for the domestic gas advertising. While good strategy in buying circulation is important, good strategy in getting readership is even more so. Circulation does us no good until we get our advertising read. I mention that because the keynote to this year's copy planning is to bend every effort towards getting our advertising read. There is no consideration that is more important. And the reason for that is the self-evident one—that we are able to buy less circulation than our competition.

So we have trained our sights first

and foremost on getting the greatest possible readership for our advertising. When we say "readership" we do not mean just notice. We want readership all the way through every advertisement. Ours is not a flash message. We have to sell cleanliness, flexibility, speed, economy, simmer burners, giant burners, smokeless broilers, heat controls, etc. It is a combination story. It all adds up but we've got to get over a considerable portion of our story before it does add. It is self-evident, therefore, that if we want to produce advertising people cannot help reading, we must arouse their emotions. An important plan in our copy program for the third year, there-

but into the highest of terms—more enjoyment, a more complete life, successful marriage, happy children. The most important element in the advertisement is a picture and caption definition of the 4 Big Jobs. The treatment of photograph and caption is in the finest magazine editorial technique, so ably used by *Life* and *Look* to secure intense readership. The photographs are not full pictures of equipment but action shots with action aplenty. Each of the 4 big jobs is numbered and identified.

This year the advertisements are designed to give maximum identification to our product. This is accomplished by a big color spot and bold display of the word Gas in large lettering against the colorful background. Gas is thus strongly identified with the 4 Big Jobs. Many have expressed the view that this is the slogan that has caught on and that "Gas Is Your Quick, Clean, Economical Servant" has not done so, as yet. Certainly, by having one slogan, there is less confusion. It's easier to remember than two. And we can use the one to tie together the entire campaign. There are four ads in this series and the schedule of consumer magazine

### A Significant Observation

"For the past four years, with the exception of the unusually cold weather in early 1936, domestic gas sales of manufactured gas companies have been showing a steady and continuous decrease until June of 1937. Since that time, with one exception, manufactured domestic gas sales have shown a steady and continued increase of an increasing amount. It is interesting to note that this change came about at a time which coincides very closely with the effective presentation of the National Advertising Campaign. While it unquestionably is true that national advertising may not be the only factor to cause this change, nevertheless, it would seem quite significant that this change took place at a time when national advertising was getting under way."—A. M. Beebe, Gen. Supt., Rochester Gas & Electric Corp., Rochester, New York.

fore, is to emotionalize the advertising.

Consider now the first advertisement in what we call the "Four Big Jobs" series, reproduced elsewhere. We start with a sentimental human situation. We have the middle-aged husband carrying his middle-aged wife across the threshold of their home that has been modernized with gas. The headline carries on in the same spirit—"Our Second Honeymoon Began When We Got Rid of the Four Big Jobs." This headline and illustration are designed to get greatest possible reading. They have a strong curiosity element and an equally strong emotional appeal. It will be difficult for the reader to go this far and not go on.

When we read the copy, the advantages of having gas do the 4 big jobs is translated not only into terms of having more time, easier work, etc.,

advertising which appears on another page lists the publications that will carry them during 1938-39.

In the series of ads, five in all—which are built around the gas range, with mention of the other domestic uses of gas, we have endeavored through headline and text to let the world know that the newest gas ranges, including those which will bear the C.P. symbol, have revolutionized cooking and provide a service faster than ever known before. Each ad in this series contains some hard-hitting copy deliberately designed to tell a convincing story of the marvelous improvements found today in gas ranges. If you will refer to the reproduction of the first ad in this series, shown on another page, you will agree, I am sure, that the message it contains will gain wide readership.

Note the inclusion of a new feature, the check chart. This is designed to list the major advantages of modern gas ranges. The reader is asked to check these against her present range. This device will create an almost irresistible impulse to get out a pencil—or to mentally get out a pencil—and start checking. The result is that we hope to get a reading for all of the many advantages of modern gas ranges. During the current year we were able to incorporate three or perhaps four advantages in a single advertisement and we had to rotate them, using certain ones in one advertisement and certain others in subsequent insertions. The range ads for 1938-39 incorporate all advantages in every advertisement.

Later, when reprints of ads for the home economics and trade magazines are made available, you will note that with certain natural limitations such as emotional appeal, these advertisements conform closely to our new copy platform. The home economics advertisements depart very little from the last ones we have been using. They are perhaps a little smarter, but they effectively carry on along previously satisfactory lines.

In the architectural publications we propose to go right down the architect's alley. He is primarily interested in design and details of construction. We want to be sure he knows the excellence of gas equipment design and construction, and we are interpreting those features in much the same tech-

nique as he employs for his own renderings.

In the dealer papers we are also striking a new note. For years advertisers have been telling dealers that their national advertising was about to swamp the dealers with business. The dealers have become fed up with that approach. We propose to present our story in such a way that when the dealer does see it, he will not have this reaction: "There's another of those ads about how much advertising somebody is doing. Let's turn over quickly to something else."

Instead we're going to get him to read our message and like it. We are employing the cartoon strip method. This advertising is high in entertainment value and will stand out like a

#### CONSUMER MAGAZINE SCHEDULE 1938-39 ADVERTISING

	Sept.	1938 Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	1939 Apr.	May	June	July	Aug.
<i>General</i>												
Saturday Evening Post	10 4BJ	15 R	19 4BJ		14 R		4 4BJ	8 R	20 4BJ	24 R		
<i>Women's Magazines</i>												
Good Housekeeping		R		R		R		R			R	
Woman's Home Companion	R		R		R		R			R		R
McCall's		R		R			R		R			
Ladies' Home Journal	R		R			R		R			R	
<i>Home Service Magazines</i>												
American Home		4BJ		R			4BJ		R		4BJ	
Better Homes & Gardens	4BJ		R			4BJ		R		4BJ		
House & Garden		4BJ		R			4BJ		R			4BJ
House Beautiful	4BJ		R		4BJ			R		4BJ		
<i>Trade and Professional Magazines</i>												
<i>ARCHITECTS AND BUILDING CONTRACTORS</i>												
Architectural Forum	x	x	x	x	x	x	x	x	x	x	x	x
American Builder & Building Age	x	x	x	x	x	x	x	x	x	x	x	x
<i>PLUMBING AND HEATING CONTRACTORS</i>												
Domestic Engineering		x		x		x		x		x		x
Plumbing and Heating Journal	x		x		x		x		x		x	
<i>GAS APPLIANCE DEALERS</i>												
Gas Appliance Merchandising	x		x		x		x		x		x	
<i>HOME ECONOMICS TEACHERS</i>												
Journal of Home Economics	x	x		x		x		x		x		x
Practical Home Economics	x		x		x		x		x		x	
Forecast	x		x		x		x		x		x	
What's New in Home Economics		x		x			x		x			

R = Range Ads, two colors.

4BJ = 4 Big Job Ads, two colors.

#### APPEARANCE DATES OF CONSUMER MAGAZINES

Saturday Evening Post	Tuesday preceding
Good Housekeeping	25th of preceding month
Woman's Home Companion	15th of preceding month
McCall's	10th of preceding month
Ladies' Home Journal	10th of preceding month
American Home	20th of preceding month
Better Homes & Gardens	20th of preceding month
House & Garden	25th of preceding month
House Beautiful	20th of preceding month

sore thumb from the advertising of nuts and bolts and various equipment which fill the other pages. We know they will be read. The effect of reading them is to have the dealer know we are advertising nationally and that if he ties up with our campaign he can profit.

In continuing our publicity activities, which include the issuance of stories for newspapers, illustrated articles for magazines and scripts for radio stations, we propose to intensify what we have already done during the last two years. Specifically, we will release our regular mimeographed stories. We will continue the one-column feature, "Kitchen Aids" and various mat feature stories.

### Eye Openers

Last year we inaugurated a new feature entitled "Eye-Openers." This is done in the Ripley "Believe-It-Or-Not" style, with each story containing a strong plug for gas. We contemplate distributing this feature at two-week intervals. The radio scripts will also be released on a two-week interval basis. Contacts with magazine editors are continuous. The availability of the new CP line of ranges is of definite news interest, and a number of illustrated features setting forth the advantages of these ranges are already scheduled for early publication in some of the most important women's magazines.

In offering a sales promotion or tie-in program for the coming year, we will include every item offered last year that was received well by the industry, and, in addition, some new items and services that participating companies have asked us to provide. Price for some of this material will be lower than heretofore, particularly the mats and electrotypes. It should be kept in mind that the more extensively companies use the tie-in advertising material, the lower the unit prices can be set as the result of producing the various items in greater volume. By placing orders at the proper time for reprints and blow-ups of the national advertisements companies can save materially, and be assured of prompt delivery as fast as the advertisements are released.

### CONSUMER MAGAZINES

#### GENERAL

	Circulation
Saturday Evening Post.....	3,034,838

#### WOMEN'S MAGAZINES

Good Housekeeping.....	2,210,835
Woman's Home Companion.....	2,980,951
McCall's .....	2,701,180
Ladies' Home Journal.....	2,981,023

#### HOME SERVICE MAGAZINES

American Home.....	1,300,000
Better Homes & Gardens... ..	1,586,481
House & Garden.....	145,864
House Beautiful.....	153,878

17,095,050

### TRADE AND PROFESSIONAL MAGAZINES

#### ARCHITECTS & BUILDING CONTRACTORS

American Builder & Building Age .....	70,626
Architectural Forum.....	38,910

#### PLUMBING & HEATING CONTRACTORS

Domestic Engineering.....	19,498
Plumbing & Heating Journal.....	18,909

#### GAS APPLIANCE DEALERS

Gas Appliance Merchandising .....	8,427
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#### HOME ECONOMICS TEACHERS

Journal of Home Economics .....	7,881
Practical Home Economics.. ..	9,300
Forecast for Home Economists .....	23,004
What's New in Home Economics .....	25,238

221,793

Among the new tie-in items to be carefully considered by the Subcommittee on Approval of Domestic Gas Copy are truck posters, special material for salesmen to leave at house calls, a slide film service, action displays for windows and for floor and counter use, a rotogravure illustrated tabloid, and special campaigns keyed to certain national advertisements and designed to secure full cooperation of dealers. Other ideas are sure to develop as the campaign proceeds. Our practice, as usual, will be to distribute to the industry samples of advertising and promotional material of local origin which has been resultful.

The development by local company organizations of special newspaper sections devoted entirely to the gas story, including dealer advertising, is becoming increasingly popular as promotional activities are intensified. A complete service of photographs, electrotypes and publicity stories will be offered to meet the requirements of companies which sponsor special newspaper editions.

### Industrial Gas Advertising

The industrial and commercial gas advertising for 1938-39 will stress chiefly the fact that gas is a modern fuel, and that it is growing in acceptance and in favor in all types of commercial and industrial establishments. Magazines selected by the Advertising Committee of the Association's Industrial Gas Section to carry the 1938-39 schedule of advertising will reach the following industries: metals, foods, hotels and restaurants, hospitals, ceramics and beauty shops. Only one change in last year's schedule has been made. Modern Hospital has been added to the list. This was done to reach the growing market represented by the unusual amount of building in the hospital field.

Publication	No. of Pages	Circulation
Iron Age	12	14,130
Steel	13	8,262
Metals and Alloys	12	4,726
Metal Progress	12	10,569
Industrial Heating	12	7,474
Heat Treating and Forging	6	2,620
Bakers' Helper	13	9,364
Bakers' Weekly	13	12,431
Food Industries	12	7,613
Hotel Management	12	7,588
American Restaurant	12	16,070
Modern Hospital	12	5,945
Ceramic Industry	12	1,525
Modern Beauty Shop	6	43,056
		151,373

The slogan-chart "The Trend Today Is to Gas" which has been a feature of the industrial and commercial trade paper advertising for the past several years will be continued. This chart has attracted wide attention, and has been favorably commented on throughout the industry. As a matter of fact, many individual gas companies, and equipment manufacturers, have adopted the chart for use in their own advertising. It is hoped that others will adopt it for their own use this year. It is also planned to send advance reprints of the advertisements to gas companies and equipment manufacturers to encourage closer tie-up with the national campaign.

How can you make this third year of advertising more effective? By actively tying in your local promotional efforts with the national copy themes, slogans and editorial articles which appear in the magazines and trade pa-

(Continued on page 287)

# COOKING REVOLUTIONIZED BY NEW WORK-SAVING GAS RANGES



## LET GAS DO THE 4 BIG JOBS

COOKING  
WATER HEATING  
REFRIGERATION  
HOUSE HEATING



**CONTROLLED SIMMER BURNERS** "click" when simmer stage is reached. Economy burner for "waterless" cooking.



**SMOKELESS SPEED BROILER.** Makes it easy to broil like a chef. Perforated grill eliminates smoke.



**POTS STAY BRIGHT** with the clean, blue flame. The porcelain-enamel range is as easy to clean as a china cup.

**YOU** can't appreciate how wonderful the new Gas Ranges are until you've seen how they make cooking easier . . . faster . . . cleaner!

They are so utterly different from the ranges of even a few years ago—so smartly styled and amazingly convenient—they really revolutionize the every-day routine of cooking.

They have every latest automatic and time-saving device. *Oven heat control*—to assure exact baking temperature. *Temperature signal* which tells when the oven is ready. *Minute minder* which lets you know when cooking time is over.

Broilers are conveniently high and either swing or pull out so there's no hot rack to handle. Drawers glide out smoothly. Complete oven insulation holds heat in—keeps kitchens cool.

New new-type burners pre-heat ovens in half time and make broiling double-quick. The "focused flame" of top burners directs more intense heat toward bottoms of utensils—makes top-of-stove cooking faster than ever.

We can't begin to tell the many ways a new Gas Range will make life easier for you—save you money. Stop in your Gas Company showroom or Appliance Dealer's today and see a variety of models! You'll realize that a modern Gas Range is the most satisfying investment you can make.

AMERICAN GAS ASSOCIATION

**THIS SEAL** represents the latest developments in cooking equipment. It stands for 22 super-performance standards established by the American Gas Association. Leading gas range manufacturers are now making de luxe ranges that include all 22 features. Such ranges are identified by the CP Seal which signifies "Certified Performance." All modern Gas Ranges have many of these features. Sizes and models to fit every need.



Modern Gas Ranges have these amazing time- and work-saving features. They will improve your cooking—save you money.

### NOW CHECK THE FEATURES YOU HAVE ON YOUR PRESENT RANGE!

- ☐ **CLICK SIMMER BURNER**—Dependable low economy flame with "click" signal.
- ☐ **AUTOMATIC LIGHTING**—No matches to strike—No waiting—Instant heat.
- ☐ **GIANT BURNER**—For quantity cooking and fastest top-stove cooking.

- ☐ **NEW TYPE TOP BURNERS**—Concentrate heat—save gas—won't clog.
- ☐ **SMOKELESS BROILER**—Keeps fat away from flame. Eliminates smoke.
- ☐ **HEAT CONTROL**—Assures exact oven temperature required.
- ☐ **BALL-BEARING ROLLERS**—Give "finger-tip control" on all drawers.
- ☐ **FAST PRE-HEATING OVEN**—Reaches highest heat in fraction of usual time.
- ☐ **SLOW-ROASTING OVEN**—Holds 250° for "long term" cooking.

First gas range advertisement in the new national advertising series



*Y*ES, something has happened in gas ranges! When an entire industry pools its knowledge, experience and capital to produce an appliance that surpasses anything on the market, the results are bound to be startling.

That's just what has happened in Gas Ranges. Prominent gas company executives, leading range manufacturers, with all their resources, the testing laboratories, with science and research, spent nearly \$1,000,000 in the development of a new gas range and their combined conclusions now bring you tomorrow's range today—the Certified Performance Gas Range!

This new range out paces progress. Joined forces produced a gas range to the point of improved efficiency, convenience and performance in one year, which would have taken ten years of ordinary development.

Gas, even though it is the perfect fuel, is no better for cooking than the range in which it is used. The problem was to find a range which combined all of the elements of excellence known to *any* cooking appliance to properly utilize that fuel. Only by such a range could gas be interpreted to its greatest advantages.

Therefore, the features of every type of range on the market, regardless of fuel, were carefully checked, carefully tested. The best features of all were then written into 22 rigid specifications to secure Certified Performance.

These specifications and methods of test were then circulated to all gas range manufacturers. Many of the prominent leaders at once set to work, re-tooled their factories, developed new dyes, purchased new equipment, hundreds of thousands of dollars were spent.

Soon finished, models were submitted to approved accredited laboratories for examination. Many failed to meet the requirements but were re-designed to meet the exacting tests. At last success was attained by many in the industry. Such ranges are now being identified by an insignia of honor and super-quality—the CP seal.

They will be placed on the market August 1. Back of them will be a concerted national promotional drive, telling the story of the CP seal, what it stands for and what it means to the potential user.

The following pages give a clearer picture of the CP range program.

# What Is the CP Gas Range?



N. T. Sellman

THE American gas Association Laboratories' approval for domestic gas ranges has fulfilled the original purpose for which this approval system was created, namely, to improve the basic standard of ranges as to safety, durability, efficiency and performance. These test requirements are, by necessity, of a minimum nature and consequently, ranges which can pass these requirements vary from a modern De Luxe fully automatic range down to just a plain stripped gas cooker.

## *Symbol of Quality Needed*

To strengthen materially the present gas range approval requirements would simply increase the number of stoves made and sold which would not meet these requirements. The best that can be hoped for in this direction is to gradually raise the standard in pace with the average manufacturer's ability to discard old methods and designs and adopt new ones.

Suggestions have been made from time to time, that we establish a series of standards such as good, better, best, and this has been properly rejected as the American Gas Association Laboratories would soon get into difficulties if they were to evaluate appliances on any comparative basis.

It is evident that the American Gas Association Blue Star Seal of Approval, representing as it does, compliance with minimum standards has failed to be of any merchandising value for advertising or campaign purposes. Something new, therefore, had to be developed if we wished to merchandise a quality gas range tied up with some symbol of quality. This was the fundamental reason for creating what is now referred to as the Certified Performance Range. The

By N. T. Sellman

Chairman, Committee for Improving Domestic Gas Appliances

Specifications for the CP Gas Range were developed by a special committee appointed by Herman Russell, past president of the American Gas Association, for the purpose of improving the quality of gas ranges. The first committee chairman was Hugh Cuthrell and the members were representatives of gas companies and range manufacturers. The present chairman of the Committee for Improving Domestic Gas Appliances is N. T. Sellman.

establishment of this new standard had to be of a voluntary nature, the promotional and sales possibilities of which would be sufficiently promising that manufacturers would decide to build according to the new standard simply because they believed in the entire program.

The origin of the CP range was to develop an appliance for domestic cooking purposes which would meet or surpass any claim made by competition as to convenience, speed, flexibility and efficiency. To prepare these specifications, the performance characteristics of most of the better gas ranges were analyzed and the desirable features incorporated in the newer ranges were listed. A specification was then developed covering all of the items which represented a definite improvement over the then existing A. G. A. specifications and to only include items which we knew were possible of accomplishment.

This resulted in twenty-two performance requirements which were listed as mandatory and ten new innovations in gas range design which were listed as optional features. The first requirement is that the range must comply with A. G. A. standard requirements before it qualifies for CP approval on the other twenty-one mandatory specifications.

The clearest evaluation of what the other twenty-one mandatory require-

ments mean is most clearly brought out by comparing the CP requirements with any similar standard in the A. G. A. specifications. For this purpose I have listed the CP requirement, the A. G. A. requirement as of 1936, and the A. G. A. requirement as of 1938. I have selected these two years, as one represents the year in which the CP requirements were formulated and the current year A. G. A. requirement to show that the CP activity has, in the case of five items already brought about an improvement in the basic standard.

## *Automatic Features*

If the listing of both mandatory and optional CP requirements does not give you a clear picture of what might be expected as to the performance of a CP range, the following brief comments may be more conclusive.

The CP range is entirely automatic—Mother does not have to strike a match, stoop over and trust that the oven or broiler may light on the first attempt. Ignition is not only automatic, but is safeguarded so that in the event the pilot is not operative, the main burner will not come on.

There has been considerable discussion about incorporating this feature as a mandatory requirement at this time. The principal adverse comments have been that too many constant burning pilots would be required, and that this alone, will produce an excess gas bill. Other objections would indicate that automatic pilots have not been developed to the point where the Service Department of Gas Companies are ready to accept them; both of these objections lack validity.

Complete automatic ignition even with a split burner top can be obtained for both oven and broiler ignition with only two constant burning pilots; even if this were an objection, low voltage electric ignition has been developed which eliminates gas pilots entirely and this equipment is very satisfactory. Elec-

## MANDATORY AND OPTIONAL CP REQUIREMENTS

Item No.	Requirement	A. G. A.		"CP"
		1936	1938	
1	The oven temperature shall reach 500° F. from 70° F. room temperature in 11 minutes. (Rate 39.1° F./min.)	21.5° (20 mins.)	24.0° (17.9 mins.)	39.1° (11 mins.)
2	Ovens, when empty, shall maintain a minimum temperature of 250° F.	None	None	Required
3	The average surface temperature of oven exteriors shall not exceed 75° F. above room temperature.	85°	85°	75°
4	An automatic oven burner lighter with an automatic device to prevent escape of unburned gas shall be provided for each oven.	Optional	Optional	Required
5	An oven thermostat shall be provided for each oven.	Optional	Optional	Required
6	Heating of ovens from 70° room temperature to 500° shall require an input of not more than 1600 B.t.u. per cubic foot of oven space.	None	3000-Ins. 3500-Non-ins.	1600
7	Maintenance of an oven temperature of 500° shall require not more than 3800 B.t.u. per hour per cubic foot of oven space.	None	4000-Ins. 5600-Non-ins.	3800
8	Oven vents shall discharge the flue gases away from rear wall.	None	Optional same as CP.	Required
9	Ball bearing rollers, or the equivalent, shall be provided on all drawers.	None	None	Required
10	Effective stops shall be provided for all drawers and racks.	None	None	Required
11	The broiler temperature on combination oven and broiler ranges shall reach 600° F. above room temperature within 15 minutes.	20 min.	20 min.	15 min.
12	Exposed broiler top surfaces shall not exceed a maximum temperature of 130° F. above room temperature.	300° F.	500° F.	150° F.
13	An effective smokeless type of broiler pan shall be provided.	None	None	Required
14	An automatic broiler burner lighter with an automatic device to prevent escape of unburned gas shall be provided.	None	None	Required
15	The minimum effective broiling area shall be equal to 50% of the horizontal cross-sectional area of the broiling compartment.	35%	35%	50%
16	The average broiler temperature shall reach 600° F. above room temperature within 15 minutes with a rated hourly input less than 22,000 B.t.u. per square foot of broiling area.* (50%.)	20 min. Mfgs. Rating	20 min. Mfgs. Rating	15 min. 22,000 B.t.u.
17	Top burners shall be of the dual purpose type for simmering. "High-Low" type burner valves are acceptable.	Optional	Optional	Required
18	One or more top burners shall have an input rating of 12,000 B.t.u. per hour and shall have an output capacity sufficient to raise 5 lbs. of water 140° F. in not more than 9 minutes.	Optional No output	Optional No output	Required Required
19	Automatic top burner ignition shall be provided for all top burners.	Optional	Optional	Required
20	Top burner heads shall be either constructed of rust-resisting metal or shall have an enamel finish.	Optional	Optional	Required
21	The thermal efficiency of standard gas range top burners shall be not less than 45%.	30%	40%	45%
22	Range must bear the A. G. A. Testing Laboratories seal of approval.			

In addition to the above mandatory requirements, the following ten optional features permit a CP range to get extra credit by incorporating the various desirable features, all of which make excellent talking points for the salesmen in promoting a sale:

1. Automatic time clock for control of oven.
2. Interval timer.
3. Lamp.
4. Convenience electric outlet.
5. Utility compartment.
6. Plate warmer compartment.
7. Separate high broiler compartment.
8. Design to allow flush fit against rear flat wall where city ordinances permit.
9. Deep well cooker.
10. Griddle.

New features that appear from time to time may be added to this optional list thereby eventually making it quite possible for a range to have not only twenty-two mandatory features about which to talk in promoting a sale, but a dozen or more additional optional features. Certainly a salesman should have no difficulty in holding a customer's interest with so many desirable selling points in his sales presentation.

tronic ignition is also the answer to those companies worrying about gum troubles or other stoppages.

Automatic safety pilot ignition, both gas and electric, has been greatly improved during the past few years. Some range manufacturers have more than seven years' experience now with ignition devices, and I see no reason for any further delay in making this equipment mandatory on the CP range which is primarily designed to meet high grade competition. Any further improvements that may be necessary to remove all objections to automatic ignition, will be greatly speeded up by the experience that will follow the general use of these devices by companies throughout the country. I am confident that a year from now we will all be wondering why there was any discussion on this subject in the first place.

*Speed and Flexibility*

The oven on a CP range is fast in heating up, it has the desired flexibility for automatically maintaining temperatures, from the highest to the lowest, required for all cooking and baking operations.

Oven efficiency is assured by limiting both the amount of gas required in bringing the oven up to temperature as well as that required for maintaining temperature. This low heat requirement coupled with adequate insulation, results in a much cooler kitchen than would otherwise be the case. One requirement also assures that no exposed surface temperatures will be hot enough to cause burns or discomfort.

Excellent broiler results are assured in that high temperatures are obtainable, meats and fish sear and broil quickly with the consequence that the natural juices remain in the food. The broiling temperature is also reached quickly making the entire broiling operation both quick and efficient. The effective broiling area is also guaranteed so that the cooking results should be uniform over the entire surface. High temperatures in exposed surfaces are guarded against and smokeless broiling is provided for. In the case of

(Continued on page 256)

# What Leaders Say About the CP Range Program

N. C. McGOWEN, *President, American Gas Association:*



N. C. McGowen

INTRODUCTION of the CP gas range is the outstanding development of the year. We have a superior fuel and will now use it in the most efficient cooking appliance ever developed. The CP range, for the first time, combines in one appliance the best features of all ranges. The manufacturers and utility men who have made this development possible deserve the commendation of the entire industry.



W. E. DERWENT, *Chairman, Domestic Gas Range Division, A. G. A. E. M.:*

THE CP gas range was conceived with one great objective in view—to give the American housewife a cooking unit that would out-perform that using any competitive fuel.

It represents the best thought, engineering and sales brains of the gas and gas appliance industry.

Its construction has caused the investment of hundreds of thousands of dollars and many headaches on the part of the gas range manufacturers, which investment is expected, through sales promotion on the part of the gas industry and the manufacturers, to return a satisfactory return to those manufacturers who are building these CP ranges.

The requirements governing the construction of these CP ranges, covering 22 "must" requirements and 7 "optional," are of such a character that they guarantee to ultimate users: 1—Speed, 2—Instant visible heat, 3—Simplicity of use, 4—Controllability, 5—Economy. No competitor can deny these advantages.

This super gas range has been well named "The Gas Range of Tomorrow" and with it the industry will go far.

A group of manufacturers have given this activity their full support and will through their own advertising and promotional sales departments do more than their full share to the end that the American housewife will have a full knowledge of the benefits to be had through the use of gas as a fuel through the medium of the CP range.



W. E. Derwent

MERRILL N. DAVIS, *President, Association of Gas Appliance and Equipment Manufacturers:*

ON August 1, starting with ranges, the CP gas appliance program will be launched and in my opinion it will cause 1938 to be long remembered as the beginning of one of the most important epochs in the history of our business. With these new high standards of appliance design, construction and operation, the home-maker is assured of the most convenient and efficient performance, and we can in the future promote, sell and establish higher standards of gas service.

Every industry is conscious of the growing number of newly organized consumer groups who demand the labeling of merchandise by identifying markers or seals of quality whenever such insignias are warranted. Recent surveys clearly indicate that the consumer really wants to know, but usually has some difficulty in finding out, what is best. There never has been a time when there was a greater need for furnishing both the consumer and the salesman with complete information along these lines than there is today, hence the launching of the CP program is both timely and appropriate.

The CP seal on an appliance is evidence of the fact that it has passed rigid tests and possesses certain high-quality features, and will enable the customer to know beforehand that if he buys it, he will be getting the best. It will instill confidence in the minds of the public regarding the appliances which use our fuel. It will furnish specific information and will act as a challenge to the alert salesman to learn all the answers to inquiries by interested customers as to what a CP appliance really is.

All appliance and equipment manufacturers regardless of the appliances now being produced and marketed by them and all gas companies should do their part to make this first step in this long-range program—the CP gas range—a success. When this program reaches the national success which I believe it is sure to attain, and when manufacturers of other lines of gas appliances have joined the procession, we shall then be well on our way to a full line of CP gas appliances which will unquestionably establish the fact that gas is the ideal fuel for the four big jobs in the home. This goal can and will be reached by a united industry strongly supporting the highest standards of service in relation to both the fuel and the appliances through which it is utilized.



Merrill N. Davis

HUGH CUTHRELL, *Chairman, A. G. A. Commercial Section:*



Hugh Cuthrell

To the gas customer, the CP range will mean confidence—confidence in buying and in cooking results. It will serve as a guarantee of the finest available cooking equipment for the best known of cooking fuels. It will provide the customer with improved convenience, greater efficiency and better cooking results. It will give the customer the most flexible cooking equipment now known.

To the gas company employee the CP range will mean reason to believe more firmly in the future of the gas industry. It will key up every type of employee through showing the ability of the industry to develop an ultra-modern phase for its basic use. It will serve the employee as a guiding star along the modern path being taken by the industry in its competitive struggle.

To the gas utility management, the CP range means the industry is taking the offensive in its competitive struggle.



F. M. HOUSTON, *Chairman, Domestic Range Committee:*



F. M. Houston

THE Certified Performance gas range campaign is an epic performance; a selling and promotional activity which for the first time in history does full justice to the industry, to the buying public, and to the dealers. Never before have the utilities and the manufacturers combined with the dealers to do so thorough a job of tailor-made merchandising, and never before have the housewives of this country been handed so worth-

while a proposition for increasing culinary skill and satisfaction.

This campaign is timed to coincide with what appears to be a fairly strong tendency toward financial and economic adjustment. The stock market reflects an underlying confidence in the future which business will unmistakably attempt to pick up and magnify. NOW is the time to work, and work hard for added gas load, for never before have we had the stimulation of so fine a plan or so thorough a setup.

The Certified Performance gas range campaign is a mutually beneficial activity which has to offer valuable dividends for buyer and seller, for utility, manufacturer, and salesman—each one has a substantial reward in store for diligent effort, effort which will be transmitted into happier homes and healthier operating companies.

A. P. TAPPAN, *Vice-Chairman, Domestic Range Committee:*



A. P. Tappan

At last the gas industry has embarked on a united effort to maintain and increase its importance in the nation's life. Today's selling efforts must be combined efforts of whole industries—no individual concern can go its own way unaided. What can be accomplished by close association and cooperation of businesses in allied lines has been convincingly shown by the experience of the power industry, the ice industry, the petroleum industry and many others. In the CP program, painstakingly worked out over a period of many months, the gas industry has an opportunity, which deserves the whole-hearted support of every individual and corporation who has a part in it. Competitive conditions demand that we pull together—common sense tells us it's the wise course to take.



HALL M. HENRY, *Chairman, former CP Range Promotion Committee:*

THIS is one of the most significant steps yet undertaken by the gas industry—and I do not wish in any way to minimize the importance of such activities as the National Advertising Program, the Home Modernization Bureau, the A. G. A. Laboratories, etc. The real significance to the gas industry of the CP range lies in the fact that for the first time the consumer has a means of identifying gas ranges that properly interpret GAS values.



Hall M. Henry



MILDRED CLARK, *Chairman, A. G. A. Home Service Committee:*



Mildred Clark

HOME service workers everywhere are intensely interested in the new CP range. Here, at last, is the range that will answer every need and will definitely brand gas as the modern fuel. Our industry, like all others, has become a victim of the present-day trend to indulge in glittering generalities. The result has been that many of these generalities have come to be meaningless when spoken by the average sales person. Talking of gas ranges we have used the words "new beauty, new speed, new economy," and other choice phrases. The CP range has not added to our vocabulary any new superlatives, but rather has come as an answer to the wishful thinking which prompted us to use these vague terms in the past.

# How the CP Range Will Be Promoted

**F**IRST national announcement of the new CP ranges will be made in the A. G. A. National Advertising Program, starting with the September issues of two women's magazines. In addition to this advertising, individual manufacturers of CP ranges will conduct their own promotional campaigns and many operating gas companies and retail range dealers throughout the country will use newspaper space to advertise the CP range locally.

The same advertising agency which handles the A. G. A. national campaign has been appointed by the Association of Gas Appliance and Equipment Manufacturers to handle the CP range promotion. R. S. Agee, formerly of the Washington Gas Light Company, is directing the promotional plans for the A. G. A. E. M. The advertising agency is preparing a complete advertising and merchandising plan book. Numerous tie-in materials for localized promotion will be included in the plan book which will be distributed shortly.

## Special Mailing

In July special issues of trade publications will be mailed to both utilities and dealers giving each group the complete details of the program, explaining what the CP range is, the National Advertising Program tie-in and further details of the promotional campaign. Conversations have been held with leading consumer publications and trade groups and much interest has been displayed in the merchandising plans and expected consumer acceptance of the CP range.

Promotion of the CP range by gas companies will be in the hands of sixteen regional managers, who in connection with their associate regional managers, will carry the story of the range to every utility in the gas industry. These regional heads will conduct a series of demonstrations and lectures on the CP program for both utility representatives

and retail dealer outlets. Many meetings of these local groups have already taken place and this part of the program is well under way.

The complete program is under the direction of the Domestic Range Committee which includes the following six utility representatives and six manufacturer members: F. M. Houston, Rochester Gas & Electric Corp., Rochester, N. Y., chairman; Allan Tappan, Tappan Stove Co., Mansfield, O., vice-chairman; W. E.

Derwent, Geo. D. Roper Corp., Rockford, Ill.; B. T. Franck, Grand Rapids Gas Light Co., Grand Rapids, Mich.; J. A. Fry, Detroit-Michigan Stove Co., Detroit, Mich.; E. R. Guyer, Cribben and Sexton Co., Chicago, Ill.; J. L. Johnson, Providence Gas Co., Providence, R. I.; S. E. Little, American Stove Co., Cleveland, O.; R. A. Malony, The Bridgeport Gas Light Co., Bridgeport, Conn.; A. F. Rice, Southern California Gas Co., Los Angeles, Calif.; T. T. Taylor, Roberts and Mander Stove Co., Philadelphia, Pa.; C. C. Young, The Gas Service Co., Kansas City, Mo.

Following is a list of regional managers and their associates who have been appointed to date:

## REGION 1

(Rhode Island, Massachusetts, Vermont, New Hampshire, Maine and Connecticut)  
*Regional Manager*—J. L. Johnson, Sales Manager, Providence Gas Co., Providence, R. I.

*Associate Regional Managers*—A. M. Apmann, The Derby Gas and Electric Co. (Connecticut); Lucien Comeau, Manchester Gas Co. (Maine, New Hampshire and Vermont).

## REGION 2

(Metropolitan and Greater New York City—also Central Hudson Gas & Electric Corp.)

*Regional Manager*—G. F. B. Owens, The Brooklyn Union Gas Co.

*Associate Regional Managers*—Helen Steers, Brooklyn Borough Gas Co.; R. A. Lawder, Consolidated Edison Co. of N. Y., Inc.; E. J. Donnelly, Queens Borough Gas & Electric Co.; W. J. Schmidt, Long Island Lighting Co.; C. A. Kennedy, New York & Richmond Gas Co.; H. E. Dexter, Central Hudson Gas & Electric Corp.; J. A. Sackett, Kings County Lighting Co.; John J. Wholey, Rockland Gas Co.; A. H. Palmatier, Rockland Light & Power Co.; W. E. Bolte, The Brooklyn Union Gas Co.

## (Upper New York)

*Regional Manager*—F. M. Houston, Rochester Gas & Electric Corp.

## REGION 3

(New Jersey, Eastern Pennsylvania, Delaware, Maryland and District of Columbia)

*Regional Manager*—R. A. Koehler, Public Service Electric & Gas Co.

## CP Range Manufacturers

Gas range manufacturers who have signified their intention of producing and promoting CP ranges are as follows:

**American Stove Co.**  
Cleveland, Ohio

**Cribben & Sexton Co.**  
Chicago, Ill.

**Detroit-Michigan Stove Co.**  
Detroit, Mich.

**Estate Stove Co.**  
Hamilton, Ohio

**Glenwood Range Co.**  
Taunton, Mass.

**James Graham Mfg. Co.**  
Newark, Calif.

**Norge Div. (Borg Warner Corp.)**  
Detroit, Mich.

**Roberts & Mander Stove Co.**  
Philadelphia, Pa.

**George D. Roper Corp.**  
Rockford, Ill.

**Standard Gas Equipment Corp.**  
New York, N. Y.

**The Tappan Stove Co.**  
Mansfield, Ohio

**Hammer-Bray Company, Ltd.**  
Oakland, Calif.

**Gaffers & Sattler**  
Los Angeles, Calif.

**Crosley Radio Corp.**  
Cincinnati, Ohio

**The Cleveland Co-operative Stove Co.**  
Cleveland, Ohio



J. L. Johnson



G. F. B. Owens



F. M. Houston



R. A. Koebler



G. T. Henry



J. W. Lea



S. L. Drumm



W. E. Leverette



F. C. Smith

*Associate Regional Managers*—Frank H. Trembly, Jr., The Philadelphia Gas Works Co. (Eastern Pennsylvania and Delaware); Henry M. Brundage, Jr., Washington Gas Light Co. (Washington, D. C., and Maryland); Gilbert Parker, Jersey Central Power & Light Corp. (New Jersey).

## REGION 4

(Virginia, West Virginia, North Carolina and South Carolina)

*Regional Manager*—Guy T. Henry, Roanoke Gas Light Co.

*Associate Regional Managers*—(To be appointed).

## REGION 5

(Georgia, Alabama and Florida)

*Regional Manager*—J. W. Lea, Atlanta Gas Light Co.

*Associate Regional Managers*—Roscoe Nettles, Tampa Gas Co. (Florida); Charles Gamble, Birmingham Gas Co. (Alabama); R. B. Ingle, Macon Gas Co. (Georgia).

## REGION 6

(Louisiana, Mississippi and Arkansas)

*Regional Manager*—S. L. Drumm, New Orleans Public Service, Inc.

*Associate Regional Managers*—L. M. Taylor, Mississippi Power & Light Co. (Mississippi); C. B. Wilson, Arkansas Louisiana Gas Co. (Arkansas).

## REGION 7

(Kentucky and Tennessee)

*Regional Manager*—W. E. Leverette, Nashville Gas and Heating Co.

*Associate Regional Managers*—(To be appointed).



C. C. Young



H. E. Young

## REGION 8

(Western Pennsylvania and Ohio)

*Regional Manager*—B. H. Gardner, Columbia Gas & Electric Corp.

*Associate Regional Managers*—R. E. Polk, Equitable Sales Co. (Western Pennsylvania); E. R. Rothert, The Cincinnati Gas & Electric Co.; G. G. Sheehan, The East Ohio Gas Co. (Ohio).



B. H. Gardner

## REGION 9

(Michigan and Wisconsin)

*Regional Manager*—B. T. Franck, Grand Rapids Gas Light Co.

*Associate Regional Managers*—(To be appointed).



B. T. Franck

## REGION 10

(Indiana)

*Regional Manager*—C. V. Sorenson, Midland Subsidiary Corp., Indianapolis, Ind.

*Associate Regional Managers*—J. C. Sackman, Northern Indiana Public Service Co.; D. O. Kreitzman, Gary Heat, Light & Water Co.; R. G. Hayler, Central Indiana Gas Co.; L. R. Squier, Indiana Gas Utilities Co.; E. G. Peabody, Citizens Gas & Coke Utility; G. O. Stewart, Public Service Co. of Indiana; F. W. Dopke, Northern Indiana Power Co.; L. B. Smith, Northern Indiana Fuel & Light Co.



C. V. Sorenson

## REGION 11

(Illinois)

*Regional Manager*—C. W. Tennant, Western United Gas & Electric Co.

*Associate Regional Manager*—H. D. Valentine, The Peoples Gas Light & Coke Co. (City of Chicago).



C. W. Tennant



A. F. Rice

## REGION 12

(Texas and Oklahoma)

*Regional Manager*—Frank C. Smith, Houston Natural Gas Co.*Associate Regional Managers*—(To be appointed).

## REGION 13

(Kansas, Colorado, Wyoming and Missouri)

*Regional Managers*—C. C. Young, The Gas Service Co.*Associate Regional Manager*—A. L. McKinstry, Cedar Rapids Gas Co.

## REGION 14

(Nebraska, Minnesota, North Dakota, South Dakota, Montana and Iowa)

*Regional Manager*—H. E. Young, Northern States Power Co.*Associate Regional Managers*—L. R. King, Iowa-Nebraska Light & Power Co. (Nebraska); Harry K. Wrench, Minneapolis Gas Light Co. (Minnesota); Allen S. King, Northern States Power Co. (North Dakota); S. D. Whiteman, Sioux Falls Gas Co. (South Dakota); Harlan Scott, Montana-Dakota Utilities Co. (Montana); C. A. Nash, United Light and Power Engineering and Construction Co. (Iowa).

## REGION 15

(New Mexico, Arizona and Utah)

*Regional Manager*—(To be appointed).

## REGION 16

(California, Washington, Oregon, Nevada and Idaho)

*Regional Manager*—A. F. Rice, Southern California Gas Co.*Associate Regional Manager*—Clifford Johnstone, Pacific Coast Gas Association.

## WHAT IS THE CP RANGE?

(Continued from page 251)

both the oven and the broiler, the discharge of the flue products is away from the wall in order to prevent smudging and discoloration of the back wall.

All drawers and compartments are provided with roller bearings and effective stops to prevent tipping or sagging of the shelves when they are in a drawn-out position.

In the case of top burners, high efficiency is assured, extreme flexibility from highest to simmer heat is obtained through dual burner operation. At least one burner must be of high input capacity in order to guarantee the greatest speed that anyone could desire.

If all cooperative efforts on the part of the industry to promote the CP range program were to stop immediately, there would still be a lasting benefit from what has already been done.

I have had occasion to look through the Spring catalogs of a member of the leading range manufacturers and they show adequate evidence that the manufacturers are recognizing the value of the CP requirements and are incorporating the various features into the appliances.

Many of the ranges which have some of these improvements will undoubtedly not meet all of the requirements and, therefore, will not bear the CP seal, but in any case, the customer is getting a better range.

One of the most striking facts upon looking through these catalogs, is the extent to which the optional feature that the range must be designed to fit flush against the rear wall, has been accepted. This feature is one which has been much discussed in the past, but little or nothing was done about it. It changes the entire

appearance of the range and makes for a clean finished installation. Flue ducts and gas piping formerly visible are now entirely concealed. Most ranges today are also equipped with flue outlets diverting the oven and broiler products of combustion away from the back wall.

Duo-type top burners for simmering are featured on all of these new ranges and the advertising matter plays up the benefits of such a feature. Manufacturers who, in the past, have not used a giant top burner are now incorporating such a burner on their better ranges. Most ranges today are also equipped for automatic lighting on all top burners.

There is also evidence of more and better applied insulation to meet the surface temperature requirements; roller bearings on all drawers and interval timers. A separate broiler compartment provided with a smokeless broiler pan is standard rather than the exception on the new models. Few ranges in the past had an electrical convenience outlet, now they are featured in the catalogs of some.

## With New CP Range Gas Stands Supreme Says Mystery Chef



*The Mystery Chef*

THE CP range means much more to the practical cook than can be told in the small space allotted to me. I say practical cook advisedly because there is a vast difference between a practical cook who daily prepares the meals in the home and a 'scientific' cook who experiments with one thing at a time, with little knowledge of the daily grind of preparing 2 or 3 meals a day for a family of 5 or 6.

"The fact that an oven will bake evenly on any shelf in the oven is a tremendous advance and means much to the woman who bakes. The speed with which water can be brought to

the boiling point and the oven brought up to 500° or 600° F. temperature again mean much to the busy housewife in starting the meal.

"Some of the advantages offered in the CP gas ranges have been obtainable in some ranges, but to have all these advantages brought together in one range definitely means that gas stands supremely unchallenged by any other heat for cooking. As a matter of fact, to the practical cook gas has always stood unchallenged by any other heat. Its flexibility alone gave it a unique position in the field of cooking that has never been challenged. With all the many advantages of gas brought together in the form of Certified Performance gas ranges, I say again gas stands not only unchallenged but *supremely* unchallenged in the art of excellent cooking."

# 16,000 Employee Suggestions and Still Going Strong

**E**Mployee relations, as an integral part of our industrial life, are most effective when administered through the medium of a well-defined and carefully directed program. This tangible evidence of employer good will and interest at once inspires confidence among the workers, stimulates their desire for hearty cooperation, and encourages their efforts to improve the company service.

In the development of such a program, several factors are involved, all of them important. These include the careful selection and training of the personnel, good working conditions, and orderly method of promotion, salary and wage increases, and the encouragement and application of proper incentives to build up and maintain the interest of employees in their work.

## *Confidence Essential*

A recent official bulletin on the subject of employee relations contained this statement: "The very heart of an efficiently operated business lies in mutual confidence between the employer and the employee."

Accepting this as one of the vital essentials in company organizations, it naturally follows that any procedure which creates a better understanding of the working problems involved, and which results in a mutual effort to solve these problems, has an important place in the successful development of an employee relations program.

In this connection, it is the purpose of this article to review one of the activities of the Employee Relations Department of The Peoples Gas Light and Coke Company of Chicago—an activity that has been definitely helpful in building up the esprit de corps of the workers, by bringing to them an enlarged conception of their duties, responsibilities and opportunities.

Contributed by A. G. A. Committee on Personnel Practices.



W. O. Hodgdon

When the Suggestion System of The Peoples Gas Light & Coke Co. was inaugurated more than 14 years ago, Mr. Hodgdon, author of this article, was made first secretary of the Suggestion Committee. He retained that position up to the time of his retirement on May 1 of this year.

Reference is made to the Suggestion System, now entering its fifteenth consecutive year of achievements—and still going strong! Over a period of more than fourteen years, the Suggestion System has developed into an excellent training ground for those who plan and think beyond their immediate jobs, and who have the urge to improve company routines and procedures. As a result, 16,000 suggestions have been submitted, and nearly 2,000 of these, all reflecting worth-while proposals, have been made effective. This steady flow of suggestions is proof of a sustained interest among the employees, and their appreciation of this opportunity to advance their own welfare, and at the same time help the company.

It is recognized that modern business depends, to a very large extent, on the number of profitable ideas which can be developed and put into service. These ideas may come from various sources, but it is acknowledged that some of the most meritorious may be expected from the workers "on the job"—the men and women who are in daily contact with company practices—provided there is an incentive for them

to act. Therefore, there is an attractive appeal to all these employees in a well-organized Suggestion System, with its easily accessible channels for getting their ideas across.

The Suggestion System of The Peoples Gas Light and Coke Company provides this opportunity along comprehensive lines. The plan has followed a well-defined course since its inception in 1924. There have been refinements in the system from time to time, but the fundamental purposes have been retained. These are, briefly:

First, to encourage and stimulate employees to submit constructive suggestions; and second, to pay liberal awards for helpful ideas.

## *Committee Set-up*

The system is under the jurisdiction of a Suggestion Committee, composed of the vice-presidents and other executives. The details are in charge of a secretary, who, with an assistant, devotes all his time to this work. Meetings of the committee, at which time suggestions are disposed of, are held on an average of twice a month. At these meetings, the members review reports and recommendations submitted by subcommittees which have investigated the merits of the suggestions. On the basis of these reports, and a general knowledge of the circumstances involved, the Main Committee fixes the awards.

There are three classes of awards, as follows:

First—Letters of Appreciation, given for those suggestions which, for various reasons, cannot be adopted.

Second—Merit Marks, valued at 50 cents each. These are used as an intermediate award, designed to take care of suggestions showing constructive thought, but which lack sufficient value to warrant making them effective.

Third—Cash Awards, given for suggestions approved for adoption. The minimum cash award is \$5. There is

no maximum limit, and the Suggestion Committee has final authority.

One of the interesting factors of the system is its secrecy. The name of the suggester remains undisclosed until after the award has been announced. This feature assures fairness in the consideration of the suggestion, without any feeling of prejudice or friendship, and it also protects the employee in the exercise of his suggestion privileges.

Those in executive positions, and department heads generally, are not eligible to participate in suggestion awards, but with these exceptions, employees throughout the company are urged to study the daily routines and procedures, to hunt for ideas that will improve the company's operations in any way, and to freely use the suggestion channels. Even a criticism, if it is constructive, is welcomed. The response, year by year, shows that the search is under way in every department and division, among all grades of employees, from the newest messenger boy to the seasoned veteran. Company practices are daily "combed" and given the "acid test," to see if there is not a better plan.

#### *Suggestion Boxes Used*

Suggestion boxes, each supplied with suggestion blanks, are available to all employees, in all departments. Each blank has a detachable coupon, with a duplicate number. The employee sends in the blank proper, with his suggestion thereon, and retains the coupon until the number is posted on a suggestion bulletin. This posting is notification that the suggestion has been acted upon, and that the identifying coupon is wanted. The filing of the coupon brings the suggester's name into the records for the first time. Incidentally, the employee is unable to learn the nature of the award until his coupon has been filed.

Naturally there is a substantial number of suggestions which deal with matters of a minor nature. These are mainly from the younger employees, and often represent their first attempts in the suggestion field. It is this type of suggestion which usually qualifies for an award of a letter of appreciation. In this letter the reason that the suggestion cannot be adopted is ex-

plained. The suggester is commended for his effort and urged to continue his search for worth-while ideas.

During the operation of this system, approximately twenty-four per cent of the suggestions submitted have received monetary awards, the number being almost evenly divided between Cash Awards and Merit Marks. The cash value of the Merit Mark Award is not paid until the suggester has accumulated ten Merit Marks or has received another Cash Award.

Outstanding suggestions—those that indicate annual savings of \$100 or more—are given Preliminary Cash Awards, are later reviewed by the Auditing Department. On the basis of recommendations following this audit, Supplemental Cash Awards are approved. Substantial savings, both in annual and cumulative totals, are definitely shown in this part of the suggestion records.

#### *Employee Reaction*

The reaction of employees upon learning of the decisions on their suggestions has an important bearing on the continued success of the system. Two essential factors are involved. First, the decision should be based on a careful survey of the plan which the employee has in mind. Second, if the plan is not approved, the reasons why it could not be made effective must be adequately and definitely explained to the employee, in an effort to convince him of the fairness of the decision.

In spite of the care which is exercised in passing on suggestions, it occasionally happens that there is an error in judgment in reaching a decision. To take care of this angle, the system provides for re-hearings. Any suggester who feels that his idea has not been correctly analyzed, or that the award does not adequately reflect the value of the suggestion, may ask for a further review. This means the appointment of a new committee, and a supplemental survey, with new recommendations.

That these requests for re-hearings are frequently based on meritorious grounds is emphasized in the more substantial awards which result. Original Letter Awards are often changed to monetary awards. In some instances,

Preliminary Cash Awards have been found to be justified.

It is evident that under this rule, employees whose proposals were not approved when originally reviewed are periodically checking routines and procedures, to see if any of their suggestions are later made effective. If so, they doubtless feel they have good grounds for requesting a re-hearing.

Proof of the wide scope and definite value of the ideas submitted is furnished in a survey of suggestions approved from year to year. These show that suggestion activities shift from time to time. During the last year or two, there has been a stimulating rivalry among the employees of the three shop districts. In 1937, for instance, the South District won over the Central District in a close finish, with the North District third.

Up to 1934, the most prolific source of suggestions was the Bookkeeping Division. Then, a year or two later, came the space heating campaigns, and suggesters had a new field for exploration. As a result, there were scores of suggestions pertinent to these campaigns. Many of them were fortified with sketched designs, models, etc., all presented with a view to improving some of the experimental and technical details of space heating problems.

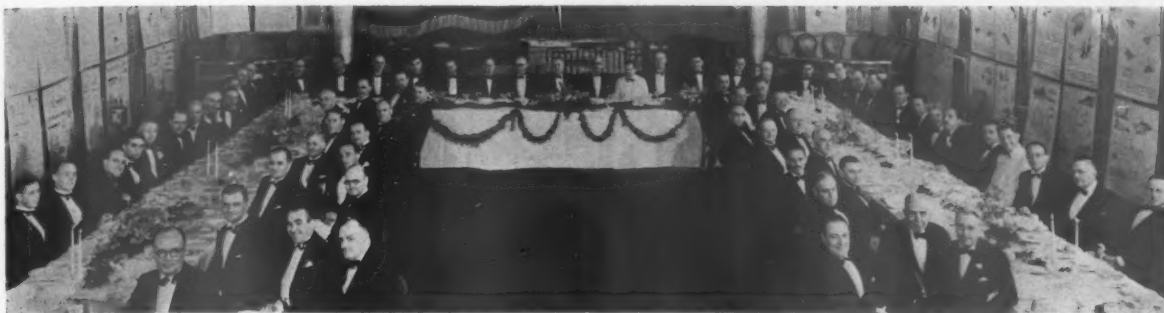
#### *Storehouse of Ideas*

With a constantly growing list of suggestions, and a steady tendency toward a better class of ideas, the Suggestion System has become one of the gas company's most interesting activities. The files in the Suggestion Committee office—containing thousands of suggestions, with their accompanying surveys and reports by the reviewing committees—constitute a veritable storehouse of company history, on routines, procedures and policies—an invaluable record of company and employee achievements over a long period of years.

The reports of the Auditing Department, covering the benefits derived from suggestions, in the way of savings in time, labor, materials or money, tell their own story of the progress of the Suggestion System. In addition, there are the improvements and refinements brought about through hun-

(Continued on page 287)

## \$13,700 Awarded to Architects in A. G. A. Competition



Dinner given June 11 at the Hotel Ambassador, New York, for the distinguished jury which selected the winning designs in the architects' competition

**C**LIMAX of the first phase of the nationwide program of the Home Appliance Planning Bureau of the American Gas Association to increase the sale of gas and gas appliances was reached June 11 at a dinner of the Association held at the Hotel Ambassador, New York. The occasion was formal announcement of the winners of the architects' competition which closed May 23.

### 27 Cash Prizes

Twenty-seven cash prizes totaling \$13,700 were awarded for the best designs of all-gas homes and neighborhood plans. More than 5,000 architects and builders had previously registered for the contest. While not all of these submitted designs, there were enough to keep a distinguished jury of architects and home developers busy a week selecting the winners.

The July issue of *The Architectural Forum* features fifty or more of the prize winning and other selected designs entered in the competition. It represents one of the most forceful and effective displays of all-gas home designs ever assembled.

The judging took place in the Business System Building of the New York World's Fair. It is expected that one or more of the prize-winning designs will be selected as models for homes to be erected in the Fair's "Tomorrow Town." All the designs in the contest

were on public exhibition on June 12, 19 and 26 in the Fair building.

The contest was divided into two parts, competition in house design and in neighborhood planning. There were two classes in the former, the first for a house of either one or two stories of 18,000 or 24,000 cubic feet content for comfortable all-year occupancy by a moderate-income family consisting of parents and two or three children with income from \$2,000 to \$7,000 yearly. The second class was similar

except that the cubic content ranged from 24,000 to 32,000 feet.

In each class there was requirement of separate detail plan of kitchen and basement or utility room, including laundry, and it was further specified that the structures should contain all necessary equipment to use gas for cooking, water heating, house heating, refrigeration, clothes drying and other laundry appliances.

In the neighborhood planning contest, the competition involved planning a complete neighborhood for families of diverse occupation with incomes ranging from \$2,000 to \$7,000 a year.

### Prize Winners

Winners of prizes in the smaller class were announced as follows:

Four first prizes of \$1,000 each—John Stenken, Leonia, N. J.; Alden Becker, Los Angeles, Calif.; Clarence W. Jahn and Edwin A. Wagner, Milwaukee, Wis.; W. C. Houtz, Arthur McVoy and Leonard Wayman, Bloomfield Hills, Mich.

Four second prizes of \$300 each—Henry P. Poli and James J. Stevenson, Pittsburgh, Pa.; Frank B. Dougherty, Wilmington, Del.; George Connor, Washington, D. C.; Herbert Struppmann, Woodhaven, L. I., and Herbert Neuman, Jamaica, L. I.

Four third prizes of \$200 each—J. Herschel Fisher, Austin, Texas; Frederick E. Emmons, Jr. and Don Emmons, Los Angeles, Calif.; J. Byers Hays, Russell Simpson and Bryon Hunsicker, Cleveland; Tallie B. Maule, Sand Springs, Okla., and George W. Edwards, Oklahoma City.

In the class for homes of larger



During the past several months literature dealing with the various phases of the national "Liberty Home" program sponsored by the American Gas Association to promote the increased use of gas and gas burning equipment in new and modernized homes has been distributed.

Owing to the existence of prior rights to the use of the name "Liberty Home" and the possibility of prior use of other similar descriptive titles in various states and localities where houses entered in the A. G. A. Competition have or may be constructed, it has been decided that as a means of protection to the local gas utility companies and the American Gas Association the use of the name "Liberty Home" must be discontinued.

At a recent meeting held at Association Headquarters attended by some of the outstanding executives in the industry it was decided to use the above insignia.

specifications the following received prizes:

Four first prizes of \$1,000 each—Hays, Simpson & Hunsicker of Cleveland, Joseph Schilowitz, Jersey City, N. J.; Hugh Stubbins and Marc Peter, Jr., Boston; Clarence W. Jahn and Edwin A. Wagner, Milwaukee.

Four second prizes of \$300 each—Stephen J. Alling, New York City; R. C. Levanas, Los Angeles; John Hironimus, New York City; Marshall H. Walker, Shreveport, La.

Four third prizes of \$200 each—Maxwell Arden Norcross, Cleveland; Malcolm P. Cameron and Howard A. Topp, Los Angeles; Lois Wilson Worley, Norman, Okla.; Yukio Kako, Los Angeles.

In the neighborhood planning competition a \$1,000 first prize was shared by W. Stuart Thompson, Donel McLaughlin and Joseph Whitney of New York City. The \$500 second prize was shared by George W. Wickstead, Philadelphia; S. Dale Kaufman, Philadelphia, and R. Andrew Bustard, Collingdale, Pa. James M. Berkey, Spokane, Wash., won the third prize of \$200.

#### *Distinguished Jury*

A representative group of eleven architects, home developers and town planners of national distinction made up the list of judges. Architects on the jury were: Eric W. Haldenby, Toronto; Joseph V. Hudnut, Harvard University; H. Roy Kelley, Los Angeles; Richard Koch, New Orleans; Alfred P. Shaw, Chicago; Otto Teegen, New York. Home developers who served were: Walter J. Collet, Scarsdale; Hugh Potter, Houston; Waverly Taylor, Washington, D. C. The town planner member was Clarence S. Stein, New York. Howard Myers, editor-publisher of *The Architectural Forum*, acted as competition advisor.

Conrad N. Lauer, president, The Philadelphia Gas Works Company, and vice-president, American Gas Association, acted as toastmaster at the dinner June 11. Among the speakers in addition to members of the jury were: Hugh Cuthrell, chairman, A. G. A. Commercial Section; Alexander Forward, managing director, A. G. A.; J. F. Quinlan, director, Home Appliance Planning Bureau. Guests included executives of utility companies and local architects and builders.

H. Roy Kelley of Los Angeles,

chairman of the awarding jury, declared he was impressed by the fact that the designs "show the determination to get away from stereotyped designs of homes, to be definitely creative instead of merely reproductive of long-used types."

Another member of the jury of eleven, Joseph V. Hudnut, dean of the Graduate School of Design, Harvard University, commended the neighborhood planning competition, emphasizing the value in "the association of a house plan with a neighborhood plan." "If we are ever to have order in our cities or smaller communities," Dean Hudnut declared, "we must face the problem of the house as part of the organic plan of such cities or communities."

### R. E. Kain Dies

**R**OBERT E. KAIN, for the past eight years Northwest district manager of the Philadelphia Electric Co., died June 11. He was 53.

Born in Atlantic City, Mr. Kain was educated in the public schools of Philadelphia and at the John Wanamaker Commercial Institute. In 1906 he entered the employ of the Merion and Radnor Gas and Electric Co., which was later merged into the Counties Gas and Electric Co. Mr. Kain was made office manager when the Philadelphia-Suburban Counties Gas and Electric Co. was formed, and was named manager of the Northwest district in 1930.

He was a member of the Edison Electric Institute, Pennsylvania Electric Association, American Gas Association, Pennsylvania Gas Association, the Ardmore Chamber of Commerce and the Ardmore Rotary Club. He was also a Mason.

## Manufacturers Call for More Advertising, Sales Effort

**G**REATER advertising effort on the part of the entire gas industry, constant cooperation between manufacturer and gas company, extensive promotion of the CP Range Program, and continued sponsoring of nationwide sales contests were advocated at the annual convention of the Association of Gas Appliance and Equipment Manufacturers. Held at White Sulphur Springs, W. Va., May 25-27, the meeting was addressed by leading manufacturers and utility executives.

In his opening address, Merrill N. Davis, president of the Association, said: "We must not only continue our present policy of advertising, but we must increase the amount being done. The manufacturers and gas companies must continue their aggressive campaigns to bring their products before the public; if they continue this policy nothing short of success will result."

N. C. McGowen, president, American Gas Association, urged manufacturers and operating companies to "join shoulders and discuss common problems around the same table." He emphasized: "We are all part of one industry. Our interests are mutual; our purposes shaped to the same end."

Plans for the new CP range were received enthusiastically by members of the Association. W. E. Derwent, chairman, Domestic Gas Range Division, A.G.A.E.M., outlined plans for a national promotional campaign to bring CP standards before the public.

F. E. Sellman, of New York, chairman of the Gas Refrigerator Division, A.G.A.E.M., disclosed that 455 utilities are now engaged in a national concentrated sales effort in behalf of gas-operated refrigerators.

A feature of the closing general session was an address by Congressman Bruce Barton, of New York.

Others who spoke at the general sessions

included Alexander Forward, managing director, A. G. A.; C. W. Berghorn, managing director, A.G.A.E.M.; H. N. Ramsey, president, Welsbach Co.; Bruce A. Wilson, Federal Housing Administration; Hugh Cuthrell, vice-president, The Brooklyn Union Gas Co.; R. G. Logue, vice-president, Ward Heater Co., Los Angeles.

Professor G. W. Dyer, of Vanderbilt University, was the principal speaker at the banquet given for the delegates and guests, the main social event of the convention.



President McGowen and Managing Director Forward at the A.G.A.E.M. Convention

## Hartford First to Enter All-Gas Home in Builders' Contest

**F**IRST of the all-gas demonstration homes to be built throughout the country as a part of the program of the Home Appliance Planning Bureau of the American Gas Association, was opened to public inspection in Hartford, Conn., Saturday, June 18. Sponsored by the Hartford Gas Company, this is the first model home to be entered in the builders' competition in which builders throughout the country will compete for prizes totaling \$10,000. The building competition closes in July, 1939.

Preview of the Hartford model home on June 16 attracted many distinguished guests, including home equipment editors of national maga-

zines and public utility executives. Special eight-page sections of the local newspapers were devoted entirely to a description of the house, its construction and its furnishings.

Norman B. Bertollette, president and general manager of the Hartford Gas Company, was congratulated on the fact that his company was the first to open an all-gas demonstration home under the program. The purpose of the entire program is to provide working demonstrations of the use of "Gas for the 4 Big Jobs," namely, cooking, water heating, refrigeration and house heating.

A feature of the preview was a luncheon given by the Hartford Gas

Company at Hotel Bond. Mr. Bertollette, who introduced the guests, pointed out that the Hartford area has enjoyed a healthy growth in home construction all through the depression and that its residents are realizing the important place gas plays in modern home comfort. Referring to the use of gas for the four big jobs, he said, "We can offer gas fuel for the four major uses at very attractive and economical rates."

### *Editors Praise Home*

Editors, architectural and building experts, and landscaping specialists placed their stamp of approval on the Hartford all-gas home,

The R. G. Bent Company was builder of the home which was designed by A. Raymond Ellis. Interior decorating was done by the Flint-Bruce Company and landscaping by the W. W. Thomson Co. Referring to the entrance of the home in the national competition, Mr. Bent said: "I believe we have a good chance of winning. We have used an always popular architectural design, stepped up to the highest degree of modern utility.

(Continued on page 287)



Preview of the Hartford all-gas model home, shown above, attracted a distinguished audience, some of whom are shown here at luncheon. Left to right are: Grace L. Pennock, Ladies Home Journal; Camille David, McCall's; Katherine Fisher, Good Housekeeping; Mrs. Ara Sutton Mixter, Hartford Gas Company; R. G. Bent, builder; J. F. Quinlan, American Gas Association; N. B. Bertollette, president, Hartford Gas Company; Frances Andrews, Country Home Magazine; Katherine Clayberger, Woman's Home Companion; Mrs. Mary Davis Gillies, McCall's



# Association's Nominating Committee Reports for 1938-39

*To Members of the American Gas Association:*

**I**N compliance with Section 2 of Article II of the by-laws of the American Gas Association, announcement is hereby made to the membership of the following report of the General Nominating Committee which will be presented to the annual convention in Atlantic City, New Jersey, in October, 1938:

*For President*—Conrad N. Lauer, president, The Philadelphia Gas Works Co., Philadelphia, Pa.

*For First Vice-President*—Walter C. Beckjord, vice-president and chairman executive committee, Columbia Gas & Electric Corp., New York.

*For Second Vice-President*—T. J. Strickler, vice-president and general manager, Kansas City Gas Company, Kansas City, Mo.

*For Treasurer*—Ernest R. Acker, president, Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y.

*For Directors*—2-year terms: Arthur F. Bridge, vice-president, Southern Counties Gas Company, Los Angeles, Calif.

Henry L. Doherty, president, Cities Service Company, New York, N. Y.

Frank A. Newton, The Commonwealth & Southern Corp., New York, N. Y.

Frank H. Payne, presi-



*Conrad N. Lauer*

dent, American Meter Company, Erie, Pa.

W. T. Rasch, president, American Gas Products Corp., New York, N. Y.  
Herman Russell, president, Rochester Gas & Electric Corp., Rochester, N. Y.  
N. T. Sellman, asst. vice-president, Consolidated Edison Company of

New York, New York, N. Y.  
Marcy L. Sperry, president, Washington Gas Light Company, Washington, D. C.

William G. Woolfolk, president, Detroit City Gas Co., Detroit, Mich.

Respectfully submitted,

JAMES A. BROWN, *Chairman*  
FRANK L. BALL  
NORMAN R. MCKEE  
W. FRANK ROBERTS  
FRANK C. SMITH  
F. X. METTENET

*General Nominating Committee*

The following members have been nominated by section nominating committees to serve as section officers for the next Association year:

*Natural Gas Department:* For Chairman—T. R. Weymouth, Columbia Gas & Electric Corp., New York, N. Y. For Vice-Chairman—Elmer F. Schmidt, vice-president, Lone Star Gas Company, Dallas, Texas. Nominating Committee: George E. Welker, chairman; William Moeller, Jr., J. B. Tonkin.

*Accounting Section:*

For Chairman—H. A. Ehrmann, Consolidated Edison Co. of New York, New York. For Vice-Chairman—F. B. Flahive, Columbia Gas and Electric Corp., New York, N. Y. Nominating Committee:



*Walter C. Beckjord*



*T. J. Strickler*



*Ernest R. Acker*



*T. R. Weymouth*



*H. A. Ehrmann*



*F. X. Mettenet*



*F. H. Trembly, Jr.*



*Merrill N. Davis*



*F. M. Goodwin*

## Named for A. G. A. Directorate



Arthur F. Bridge



Henry L. Doherty



Frank A. Newton



Frank H. Payne



W. T. Rasch



Herman Russell



N. T. Sellman



Marcy L. Sperry



Wm. G. Woolfolk

H. E. Cliff, chairman; A. S. Corson, F. L. Griffith, E. B. Nutt, J. M. Roberts.

**Commercial Section:** For Chairman—F. X. Mettenet, The Peoples Gas Light & Coke Co., Chicago, Ill. For Vice-Chairman—W. W. Winter, Atlanta Gas Light Company, Atlanta, Ga. Nominating Committee: F. M. Banks, chairman; C. E. Bennett, F. M. Rosenkrans, N. T. Sellman.

**Industrial Gas Section:** For Chairman—Frank H. Trembly, Jr., The Philadelphia Gas Works Co., Philadelphia, Pa. For Vice-Chairman—Franklin T. Rainey, The Ohio Fuel Gas Co., Columbus, Ohio. Nominating Committee: Ralph L. Manier, chairman; Charles W. Gale, Joseph F. Quinn.

**Manufacturers Section:** For Chairman—Merrill N. Davis, executive vice-president, S. R. Dresser Manufacturing Co., Bradford, Pa.

**Technical Section:** For Chairman—F. M. Goodwin, Boston Consolidated

Gas Co., Boston, Mass. For Vice-Chairman—A. M. Beebee, Rochester Gas and Electric Corp., Rochester, N. Y. Nominating Committee: M. I. Mix, chairman.

### Report Covers Trend of Gas Rates

A NEW study of the trend of gas rate structures in the United States has been issued by the statistical department of the American Gas Association. Published as A. G. A. Statistical Bulletin No. 30, it covers a five-year interval based on an analysis of the A. G. A. Rate Service showing rates in effect as of January 1, 1933, and January 1, 1938. It brings up-to-date a study made five years ago analyzing the rate lists as of January, 1925, 1930 and 1933.

Conclusions of the first study of the eight-year-period ending in 1933 were summarized under two general heads; first, a more widespread use of rates reflecting competitive economic factors and, second, a more general tendency toward the use of separate or distinct rates for special classes of service or a general trend in the direction of class rates.

A third major factor characterizing the trend of gas rate structures in recent years has been the rapid adoption of rates based on heating value rather than gas volumes, or so-called therm rates. At the present

time, 54 companies, serving some 500 cities and towns, have adopted this method of billing.

The present study indicates a continued and increased appreciation of rates formulated upon sound economic principles and a greater recognition of the competitive aspects involved in the construction of rates designed to secure such business as house heating, large volume water heating, as well as industrial and commercial uses generally.

Both manufactured and natural gas rate structures are included in the analysis.

### Awarded Honorary Degree

THE outstanding contributions of Col. Henry L. Doherty to the scientific and engineering world won for him the degree of doctor of science at the University of Miami on Memorial Day.

The honorary degree was conferred in recognition of Mr. Doherty's studies and researches to further scientific knowledge of fuels and gases and their economic utilization, his pioneer fight to prevent waste of natural resources of gas and petroleum, and his moral and financial backing of engineering education.

The university at the same time conferred on Mr. Doherty's wife, Grace Eames Doherty, the honorary degree of doctor of philanthropy, in recognition of her work in the interest of benevolent and charitable enterprises.

## Former A. G. A. Director Dies Suddenly



B. J. Denman

**B**URT J. DENMAN, vice-president and general manager of The United Light and Power Co., Chicago, and a director of the American Gas Association from 1931 to 1936, died suddenly June 25.

Born on April 30, 1876, near Toledo, Ohio, Mr. Denman was graduated from

the University of Michigan in electrical engineering in 1899. He received an additional degree in electrical engineering in 1901.

In 1904, he joined the Detroit Edison Company, doing sales promotion work first and later power plant construction and operation. He was chief engineer when he left there in 1913 to become assistant general manager and later general manager of The United Light and Power Co. system. During 1906-1907, he also served as assistant professor of engineering at the University of Michigan. He was non-resident lecturer at the University the following year, with the consent of the Detroit Edison Company.

Besides the American Gas Association, Mr. Denman was a member of the American Society of Mechanical Engineers and the American Institute of Electrical Engineers. He was a trustee of Northwestern University, Evanston, Ill.

## H. M. Crawford Dies



H. M. Crawford

**H**UBERT M. CRAWFORD, general sales manager, Pacific Gas and Electric Co., San Francisco, died suddenly May 29. His passing was a tremendous shock as he had apparently been in excellent health and had recently attended the Natural Gas Department Convention in

New Orleans. He was 53 years old.

Born in Newcastle, Pa., Mr. Crawford was a graduate of the University of Nebraska. His first utility job after coming to California was commercial manager of the Bakersfield district of San Joaquin Light and Power Corp. He joined the Pacific Gas and Electric Company 25 years ago.

He has been a member of the Pacific Coast Gas Association for the past 20 years, serving as president in 1936. He is a past president of the Sales Managers Association of San Francisco.

## GAS INDUSTRY DAY AT N. Y. WORLD'S FAIR

The Executive Board of the American Gas Association has approved naming Monday, October 9, 1939, as Gas Industry Day at the New York World's Fair. A program of special activities appropriate for the occasion is being considered. Details will be announced later.

## Clarence H. Geist Is Dead



C. H. Geist

and Construction Company, the Philadelphia Suburban Water Company, the Spanish River Land Company and a number of other concerns.

He was a director of the United Gas Improvement Company, a member of the board of trustees of Jefferson Medical College, the board of directors of Bryn Mawr College and vice-president and director of the Bryn Mawr Horse Show and County Fair.

Mr. Geist was 72 years old last Jan. 19. Born in 1866 on a farm near LaPorte, Ind., Mr. Geist was educated at Valparaiso Normal School and worked on his father's farm until he was 18.

At that time he decided to go West and for the next four or five years he roamed the country, dealing in live stock, principally horses, and living largely in the saddle.

After spending about seven years in the real estate business, Mr. Geist became associated with former Vice-President Charles G. Dawes and the latter's brother, Rufus, in the development of gas and electric utility companies.

His interests in this field continued to increase for many years until in 1930 he was looked upon as the largest individual holder of public utility stocks in the country. Mr. Geist and the Dawes brothers finally sold their Midwest holdings to the Insull interests.

Mr. Geist continued to increase his holdings in utility companies in the eastern part of the country. One of these was the Philadelphia Suburban Water Company, which supplies forty-nine towns in the vicinity of the city. He was believed to be the largest U. G. I. stockholder.

## Resigns After 35 Years With Dresser Co.



Fred A. Miller

**A**FTER more than thirty-five years of service, Fred A. Miller has decided to relinquish all official duties with the S. R. Dresser Manufacturing Co., Bradford, Pa. His resignation as a director and officer was accepted after a tribute by all his associates to the position of high respect in which he is held by the entire gas industry, and his valuable service to the company.

In 1905, when the S. R. Dresser Manufacturing Co. was first incorporated, Mr. Miller became secretary-treasurer. Solomon R. Dresser, founder of the company in 1880, was president. Since that time, Mr. Miller has witnessed and played an important part in the tremendous growth of the gas industry in this country.

Following Mr. Dresser's death in 1911, Mr. Miller became president and served in that capacity for eighteen years until 1929, when he was elevated to chairman of the board of directors.

During his long and outstanding association with the gas industry, where he is and has been widely known for years, Mr. Miller served as president of the Natural Gas Supply Men's Association until its affiliation with the American Gas Association. He later became a director of A. G. A.

As a mark of the esteem with which his associates regard him and his contribution to the company's past growth, he has been elected honorary chairman of the board by the directors of the Dresser Company.

## Company Rewards Graduates

**I**N recognition of its appreciation, the Southern Union Gas Company recently presented to each of the five employees who have satisfactorily completed the home study course on natural gas a leather bound copy of Diehl's *Natural Gas Handbook* with their names embossed thereon. Those so recognized are Hampton Halsell of Fayetteville, Arkansas; O. B. Peacore of Albuquerque, New Mexico; Van Thompson, Joe D. Reid and E. H. Newman, all of Dallas, Texas. The Southern Union Gas Company has a large enrollment studying the home study course on natural gas conducted by the University of Kansas under the auspices of the American Gas Association.

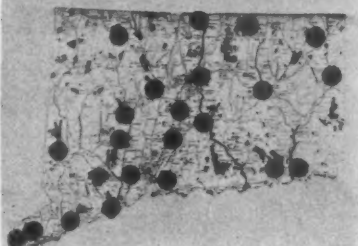
**1937 APPLIANCE SALES**

— BY —  
**CONNECTICUT  
 MASTER PLUMBERS**

IN COOPERATION WITH  
**CONNECTICUT  
 UTILITY COMPANIES**

**\$444,246.00**

**PLUMBER-UTILITY  
 COOPERATIVE SELLING  
 — IN —  
 CONNECTICUT**



**THE GROWTH OF  
 PLUMBER-UTILITY  
 SELLING COOPERATION  
 IN CONNECTICUT**

YEARS	SALES	Plumbing Firms Participating
1932	\$68,000.00	85
1933	173,466.00	220
1934	231,290.26	349
1935	348,847.00	529
1936	386,408.00	631
1937	444,246.00	766

## Plumber-Utility Cooperation in Connecticut

By **A. B. DIBBLE**

Secretary, Master Plumbers' Association of Connecticut

**W**ITHIN the past year, there has been a renewed interest throughout the country in a movement for better cooperation between utility companies and master plumbers.

The Connecticut Association of Master Plumbers has been especially interested in this movement, because during the past six years it has developed, in cooperation with the utility companies of Connecticut, a state-wide Plumber-Utility Cooperative Plan, which has proven practical in operation and sound in principle.

Because of the measure of success attained, the directors of the Connecticut Association have asked me to present the features of the Connecticut Plan, believing that the information would prove helpful to other groups striving for plumber-utility cooperation.

The Connecticut movement had its inception early in 1932, shortly after the American Gas Association had announced its code of merchandising procedure which had been worked out with the cooperation of the National Association of Master Plumbers.

The Connecticut Utility and Master Plumber Associations, acting on the

A. G. A. proposal, developed the Connecticut Merchandising Principles, which are virtually the 1931 A. G. A. Principles, plus eight other clauses covering specific features to fit local conditions. The Connecticut Association of Master Plumbers and the two state associations of gas and electric utility companies subscribed to these principles by action of their respective memberships.

### *Principles Adopted*

At the time the merchandising principles were being formed, our association officers met with the presidents and vice-presidents of the gas and electric companies in Connecticut, and agreed on the following plan to encourage better business relations:

1. Set up a permanent State Plumber-Utility Joint Committee—four Master Plumber representatives and four Utility representatives.
2. Decide on a criterion of sound merchandising that would be fair to both parties, and enable each to apply as a test when irregularities arise. These are the Merchandising Principles referred to.
3. Set up local Plumber-Utility Joint Committees in each key center in the State.

4. Assign an able trade relations man to carrying out this program, working in the interest of both the Master Plumber and the Utility Companies.

Each company, while observing the Principles, makes its own cooperative arrangements with the local trade in the area it serves. However, this is all within the bounds of the Principles. The honoring of the Principles by both utility companies and master plumbers has eliminated a large number of the complaints over unfair trade practices.

It is now customary throughout the state for the gas and electric companies to discuss with the local committee their plans, in advance of announcement. The result is that their plans incorporate suitable provisions for the participation of master plumbers and heating contractors.

The Connecticut Plan is set up on a state-wide basis as shown in the center chart above, which indicates cooperative activity in practically every trading area. However, local joint committees apply local home rule and adjust local matters almost entirely. For this reason the Connecticut Plan is applicable by any local group for any local situation.

I am convinced that this cooperative movement is sound. In Connecticut,

Presented at the annual convention of the National Association of Master Plumbers, Cleveland, June 6-10, 1938.

**COMMISSIONS  
— AND —  
INSTALLATION AMOUNTS  
— EARNED BY —  
CONNECTICUT  
PLUMBING FIRMS  
THROUGH SELLING IN COOPERATION WITH  
CONNECTICUT  
UTILITY COMPANIES**

1933	\$48,696.79
1934	68,803.53
1935	101,359.14
1936	108,702.71
1937	193,225.60

the master plumber and utility are sincere in their efforts, and united, they are succeeding. Together they have done much to wipe out distrust and create confidence.

One reason this movement has progressed, we believe, is because our Association is dealing with the top executive in each company. He may be very busy, but he thinks this matter is important enough to look after it himself. The door of his office is always open to us.

Another important point, we feel, is that to be effective, cooperation requires active organization. Our Plumber-Utility Joint Committee, composed of presidents and vice-presidents of utility companies, and officers and directors of our Association have given liberally of their time; they have been very energetic to the end that this cooperative activity be fair and workable.

At the beginning of my talk, I spoke of attaining a certain measure of success, which is, after all, the proof of the pudding. This success is evident not only in improved trade relations, but can be shown in actual dollars and cents value, as indicated by the cooperative sales figures on the accompanying charts.

The 1937 appliance sales by Connecticut Master Plumbers, selling in cooperation with the Connecticut Utility Companies, are shown on one of the accompanying charts. Four hundred forty-four thousand, two hundred forty-six dollars is a sizeable sales figure in any language, and indicates the appliance selling ability of the Master Plumber.

**PLUMBER-  
UTILITY COOPERATION  
IN CONNECTICUT  
IS VALUABLE TO BOTH  
UTILITY COMPANY  
and MASTER PLUMBER**

**VALUABLE TO UTILITY**

Master plumber sales help build load.  
Master plumber recommendation creates greater acceptance for gas and gas appliances.  
Master plumber customer contact gives broad market coverage.

**VALUABLE TO MASTER PLUMBER**

Appliance sales are profitable in commissions and installation amounts.  
Master plumber is relieved of... investment stock collection losses... servicing expense.  
Master plumber receives help... in financing in selling... in advertising.

Another chart shows the growth of plumber-utility selling cooperation in Connecticut in the past six years, and reflects substantial progress in the business relationship between master plumbers and utility companies in the state. In the six-year period, these sales have amounted to more than a million and a half dollars in merchandise sold. The number of plumbing firms participating has steadily increased until last year 766 firms took

part in the cooperative selling program.

The fourth chart shows the commissions and installation amounts earned by Connecticut plumbing firms through cooperation with the utility companies. In the six-year period these figures represent more than half a million dollars paid to Connecticut plumbing firms by Connecticut utility companies for services rendered. No need to tell you how welcome this business has been during these lean years.

The last chart presents the message that plumber-utility cooperation is mutually beneficial; that it is valuable to both the utility company and to the master plumber.

In conclusion: The Connecticut Association considers the Connecticut Plan and the Connecticut Merchandising Principles as fostering sound and effective cooperation between utility companies and master plumbers. We have worked under their guidance for six years satisfactorily, and we recommend the plan and the principles to any group seeking a practical cooperative arrangement.

**Six Employees Receive  
McCarter Awards**

**W**ILLIAM H. NELSON and Fred R. Ward, employees of The Ohio Fuel Gas Company, received unusual recognition for their outstanding acts of life saving at a meeting June 9 in the high school auditorium at Sugar Grove, Ohio. These employees were signally honored by the award of McCarter medals and certificates for their achievements. They had successfully resuscitated persons overcome by gas using the Schafer prone pressure method.

Presentation of the awards to Messrs. Nelson and Ward was made by R. C. Kadel, who taught the First Aid group. At the same time there was also presented to a class of 40 employees of the company who had recently finished the Standard and Advanced Red Cross First Aid courses, the certificates indicating successful completion of the courses.

The meeting began with a dinner and was followed by appropriate talks by officials and managers of the company.

On June 28, at a special gathering of employees, Gifford M. Roberts, of the Florida Public Utilities Company, received a McCarter medal and certificate for his heroic act in saving the life of John Carey, a fellow employee. E. J. Fechtel, manager, presided at the meeting which included a

general discussion on accident prevention and the handling of emergencies. Mr. Roberts received many congratulations for winning the McCarter award. James H. Motz is supervisor of the Florida company's safety program.

A McCarter medal and certificate were awarded to Joseph Fisher and a certificate of assistance to Jacob Bowers, both of The Philadelphia Gas Works Co., for their efforts in reviving a person overcome by gas. Presentation of the awards was made June 29 by Conrad N. Lauer, president of the company. Before the presentation, C. S. Hazel, assistant manager, customers' service department, read the citation for which the men were recognized.

David P. Flavin, Malden and Melrose Gas Light Co., Malden, Mass., on June 24 joined the distinguished group who have received McCarter medals and certificates for life saving. On that date he was guest of honor at a safety meeting and received a medal and certificate. He had performed an outstanding act of life saving by use of the Schafer prone pressure method of resuscitation.

McCarter medals and certificates are awarded by the Accident Prevention Committee of the American Gas Association through the generosity of Thomas N. McCarter, president, Public Service Electric and Gas Co., Newark, N. J.

# Atlantic City Again to be Host to A. G. A. Members

**A**TLANTIC CITY the week of October 10. The Twentieth Annual Convention of the American Gas Association. The theme—"Gas Marches On."

Make a notation of the date on your desk calendar and plan to be at New Jersey's famous resort, "The World's Playground," for a series of business sessions, conferences and entertainment features that promise to round out one of the most informative and profitable annual gatherings ever sponsored by the gas industry.

## *Theme "Gas Marches On"*

It is not by chance that the theme "Gas Marches On" was selected as the slogan around which the coming convention is to be built. The various regional Association meetings and conferences held throughout the country since the A. G. A. staged its Cleveland convention last September, have demonstrated the fact that management is determined to improve sales and is utilizing every modern tool at its disposal to accomplish that objective. The years 1937-38 give definite hope of marking the turning point for the industry. The Atlantic City convention

thus will be strongly sales-slanted in conformance with prevailing thought, but not, of course, to the exclusion of other subjects which are fundamental.

Good programs make good conventions. In the final analysis, much depends on those whose responsibility it is to select subjects and speakers, making sure that the "menu" is sufficiently inclusive to meet the requirements of delegates who serve in every department of the business. The programs for the sectional meetings are built by special committees appointed by section chairmen. Following is the committee in charge of the general sessions program:

George F. Mitchell, president, The Peoples Gas Light & Coke Company, Chicago, Ill.

E. J. Boothby, vice-president, Washington Gas Light Co., Washington, D. C.  
Merrill N. Davis, vice-president in charge of sales, S. R. Dresser Manufacturing Co., Bradford, Pa.

R. L. Fletcher, vice-president, Providence Gas Company, Providence, R. I.  
H. D. Hancock, Cities Service Company, New York, N. Y.

James F. Pollard, president, Seattle Gas Company, Seattle, Wash.

J. French Robinson, president, Peoples Natural Gas Company, Pittsburgh, Pa.

F. S. Wade, president, Southern Counties Gas Company, Los Angeles, Calif.

W. Jennings Young, president, Northern Oklahoma Gas Company, Ponca City, Okla.

Kurwin R. Boyes, American Gas Association, New York, N. Y.

With but few exceptions, it has been past custom to look within the ranks of the industry itself for general sessions speakers to cover subjects deemed to be the most important at the moment for the serious consideration of the industry. By way of innovation this year, Mr. Mitchell's committee has agreed that all speakers on the general sessions should be from without the gas industry. This departure, the committee believes, will be popularly received.

Some of the subjects suggested for inclusion in the general sessions are research, national resources, advertising and regulation. These will be presented by persons of acknowledged national reputation, occupying positions of great responsibility in American industry, whose public utterances carry a ring of authority. They are sure to bring to the convention some concise objective analyses of and fresh view-

points on the topics assigned to them.

The convention will open on Monday, October 10, with the day principally devoted to committee meetings and business sessions of special and particular interest to the natural gas members. The general sessions will be on Tuesday, Wednesday and Thursday mornings. Sectional meetings will be scheduled, as usual, in the afternoons. The Technical and Industrial Gas Sections will have three meetings, while the Accounting and Commercial Sections will have two. The Home Service women will repeat their Breakfast Conference. In addition, there will be several luncheon conferences staged in connection with sectional meetings. The Association's Committee on Personnel Practices will sponsor an industrial relations luncheon which will feature a speaker on that subject.

General sessions will be held in Atlantic City's Auditorium, familiar for several years to a large number of gas industry men and women. Sectional meetings will be held in the hotels, excellent accommodations being available.

Entertainment features will include the President's reception and dance on Tuesday evening, a dance and special entertainment on Wednesday evening, a Tea and Bridge Party for the ladies, golf facilities at nearby courses and a variety of other features that only Atlantic City can provide.

### Elected Vice-President of Philadelphia Company

**F**RANK R. PHILLIPS, president of the Philadelphia Company and subsidiary companies, recently announced the election of Pressley H. McCance, of Pittsburgh, as vice-president of the company. Mr. McCance, who was formerly assistant to the president and director of personnel, has a record of many years of service with the company. He is a member of the Committee on Personnel Practices of the American Gas Association.

### Radio Program Director

**R.** J. RUTHERFORD, vice-president of the Worcester Gas Light Co., Worcester, Mass., has been elected a director of Regional Advertisers, Inc., sponsors of the Mystery Chef radio program, to replace F. D. Cadwallader, vice-president of the Boston Consolidated Gas Co., Boston, Mass., who has resigned.

### Aids Storm Victims

**C**OMMUNITY Natural Gas Company, Abilene, Texas, through a letter from R. H. Gray, district manager, has announced to Clyde residents that bills for gas service rendered to 14 consumers directly affected by the June 11 tornado have been cancelled. Meter deposits are being made available on request to twelve of the fourteen customers whose homes were damaged by the cyclone, the other two not having deposits up.

Total cancellation by the company amounts to approximately \$50, and the

deposits which may be refunded amount to \$116. In addition to this direct assistance to the storm sufferers, the company donated \$125 to the Red Cross fund for relief of victims in the stricken area.

### Morris Elected Trustee of Stevens Institute

**W**ILLIAM CULLEN MORRIS, vice-president, Consolidated Edison Co. of New York, was elected a member of the board of trustees of the Stevens Institute of Technology, Hoboken, N. J., at the annual pre-commencement meeting of the board June 9. Mr. Morris, who was graduated in 1896, recently completed a term as president of the Stevens Institute Alumni Association.

### On Copy Committee

**R.** H. FITE of Ebasco Services, Inc., has been appointed a member of the Subcommittee on Approval of Domestic Gas Copy. This committee in co-operation with McCann-Erickson, Inc., supervises and prepares all advertisements authorized by the Committee to Conduct National Advertising, headed by Major T. J. Strickler of Kansas City.

### Dorothy Dix Cites Cooking Magic

**T**HE famous Dorothy Dix believes the cooking stove is the cornerstone of happy married life. "The crowning dumbness of wives," she wrote recently in her widely syndicated column, "consists in their not realizing that the cooking stove is the cornerstone of every successful marriage. It is the promoter of domesticity and the preventer of sidestepping in husbands. It is the preserver of romance. It is the one and only instrument with which a woman can work magic."

### Gettysburg Memorial

A forty-foot shaft of Alabama limestone topped by a three-foot natural gas flame was dedicated by President Roosevelt, July 3, on the battlefield at Gettysburg as an American symbol of "peace eternal." An electrical device turned on the gas flame which will burn as a symbol of the friendship that succeeded the war between the states. Shining from the top of Oak Ridge, second highest elevation on the rolling battlefield, the light is visible for 20 miles.

## Refrigerator Trailers Aid Sales



Gas refrigerator trailers, "Prosperity" and "Success," are shown above being launched by officials of the Grand Rapids Gas Light Co., June 11. According to Bernard T. Franck, sales manager, the trailers will be manned by two salesmen who will canvass their territories and hold demonstrations. In the picture are, left to right: Mrs. Mildred Gray, W. M. Chamberlain, John L. Heydenburg, W. H. Kurdelski, Mr. Franck, Beatrice L. Geesey, Dan Smith and George Wieland.

## Affiliated Association Activities

### Advertising Group Elects Weeks, Makes Better Copy Awards



Howard Weeks

**H**OWARD F. WEEKS, Consolidated Edison Co. of New York, New York, N. Y., was elected president of the Public Utilities Advertising Association at its annual meeting in Detroit, June 14.

Other new officers are: E. K. Hartzell, Lake Shore Electric Railway Co., San-

dusky, Ohio, first vice-president; H. J. Rowe, Iowa Electric Light & Power Co., Cedar Rapids, second vice-president; A. C. Joy, Pacific Gas & Electric Co., San Francisco, third vice-president; H. W. Olcott, Bozell & Jacobs, Indianapolis, secretary; T. H. Spain, Public Service Electric & Gas Co., Newark, treasurer.

Newly elected directors are: Miss Clara Zillessen, Philadelphia Electric Co.; E. Frank Gardiner, Commonwealth Edison Co.; J. R. Pershall, Public Service Co. of Northern Illinois; Kenneth Magers, Cincinnati Gas and Electric Co.; S. J. Ballinger, San Antonio Public Service Co., San Antonio, Texas.

#### Better Copy Awards

Winners of the 1938 Better Copy Contest sponsored by the association were announced at the meeting. The contest is held annually for all gas, electric and street railway companies in the United States and Canada. The awards to gas companies were as follows:

Gas load building, newspaper advertising—Premier award, The Peoples Gas Light & Coke Company; Awards of Excellence, The Philadelphia Gas Works Company, Niagara Hudson Public Service Company.

Public relations, newspaper advertising—Premier award, The Peoples Gas Light & Coke Company; Awards of Excellence, New Orleans Public Service, Inc., Public Service Co. of Northern Illinois.

Merchandise, newspaper advertising—Premier award, Consolidated Edison Co. of N. Y., Inc.; Awards of Excellence, Rochester Gas & Electric Corporation, Gas and Electric Shops (Cincinnati).

Awards for excellence of copy—Public Service Co. of Northern Illinois, Texas Cities Gas Company, The Cincinnati Gas & Electric Company, Milwaukee Gas Light Company.

Employee magazine—Premier award, Detroit Edison Company, "The Synchroscope"; Awards of excellence, Consolidated

Edison Company of N. Y., Inc., "Around the System"; The Philadelphia Company, "Public Service."

Employee newspapers—Premier award, Cincinnati Gas & Electric Company, "The O. K. News"; Awards of excellence, Florida Power & Light Company, "Sunshine Service News"; Georgia Power Company, "Snapshots."

Direct mail advertising—Premier award, Georgia Power Company; Award of excellence, Pacific Gas & Electric Company.

Window or inside display—Premier award, Southern California Gas Company; Awards of excellence, The Philadelphia Gas Works Company, Consolidated Edison Co. of N. Y., Inc.; Honorable mention, Laclede Gas Light Company.

Poster advertising of all types—Award of excellence, The Peoples Gas Light & Coke Company.

### Canadian Gas Association

**M**ANY representatives of the American gas industry were present at the thirty-first annual convention of the Canadian Gas Association which took place, June 9-10, in Toronto. E. J. Tucker, president and J. D. von Maur, program chairman, were instrumental in providing a splendid program which was enthusiastically received.

Representing the American Gas Association were N. C. McGowen, president; Alexander Forward, managing director; and R. M. Conner, director of the A. G. A. Testing Laboratories. Merrill N. Davis, president, Association of Gas Appliance and Equipment Manufacturers, spoke in behalf of the manufacturers.

T. P. Pinckard, vice-president and general manager, United Gas & Fuel Co., Hamilton, was elected president at the meeting. Other officers elected were: Julian Garrett, Edmonton, vice-president; John B. McNary, Hamilton, vice-president; George W. Allen, Toronto, secretary-treasurer.

New executive committee members include: J. C. Dawson, Quebec City; H. B. Fairweather, St. Johns; Frank D. Howell, Brantford; John Keillor, Vancouver; V. S. McIntyre, Kitchener; Alex MacKenzie, Toronto; W. H. Munro, Ottawa; W. J. Peard, Jr., Montreal; John D. Price, Montreal, and Edward J. Tucker, Toronto.

The papers presented at the three general sessions were of an outstanding character.

### Pacific Coast Gas Association



J. J. Winn, Jr.

**O**N June 16 and 17 the Pacific Coast Gas Association convened at Portland, Oregon, for its annual north-west conference. About 130 men and women were in attendance representing the gas companies in British Columbia, Washington, Oregon and a goodly

number from California.

The keynote of the conference was sales and the meeting was fortunate in having presented to it complete plans for the 1938-1939 National Advertising Program. These plans were ably presented by Vernon Churchill, Portland manager of McCann-Erickson, Inc. James F. Pollard, president, Seattle Gas Company, who had just returned from the Spring executive meeting in Chicago made an inspiring address descriptive of the optimism and vitality displayed by the gas industry nationally as represented at the Chicago meeting.

#### McKee Stresses Unity

Norman R. McKee, president, Pacific Coast Gas Association, and vice-president, Southern Counties Gas Company, described the current activities of the P.C.G.A. and commented enthusiastically on the unity of the gas industry. R. E. Fisher, vice-president of the Pacific Gas and Electric Company, San Francisco, appeared on the program twice—first, in the capacity of chairman of the Gas Exhibit Committee of the Golden Gate International Exposition and second, as the author of a paper on Improving Customer Contacts.

One of the most inspirational addresses of the meeting was made by A. F. Rice, Southern California Gas Company, on the subject of Selling through Dealers. Mr. Rice also addressed a dinner meeting of gas company executives on the promotion plans for the Certified Performance Range.

The success of the meeting was largely due to the careful arrangements made by J. J. Winn, Jr. and C. G. Gueffroy of the Portland Gas and Coke Company. A cordial welcome was given those in attendance by Paul B. McKee, president, Portland Gas and Coke Company.

## Institution of Gas Engineers Holds Annual Meeting



Sir Frederick J. West, right, with S. J. Beale, who represented the American Gas Association at the Institute meeting

**C**ULMINATING a week of exceptional activity, The Institution of Gas Engineers in England elected Robert Robertson, engineer and works manager of the Bristol Gas Company, president of the Institution at the seventy-fifth annual general meeting which ended June 3. Sir Frederick J. West, of Manchester, chairman and managing director of West's Gas Improvement Co., Ltd., and of West Gas Improvement Co., New York, was elected vice-president.

Sir Frederick is well known in the United States; he won the Walton Clark Medal in 1935 and was a member of the British delegation which attended the A. G. A. convention in 1933.

### Milne-Watson Honored

Sir David Milne-Watson, governor of the Gas Light and Coke Company of London was awarded the Birmingham Medal for originality in connection with the manufacture and application of gas. He is no stranger to this country, having addressed the 1929 A. G. A. convention in Atlantic City by trans-Atlantic telephone. Neither is his son, Michael, who appeared on the program of the 1936 A. G. A. convention and spent some months studying American sales methods at The Brooklyn Union Gas Company's offices.

Honorary membership in the Institution was extended to N. C. McGowen, president of the American Gas Association.

Representing the Association at the meeting was S. J. Beale, general manager of West Gas Improvement Co., New York, who reported a total attendance of 1,752 as compared to 1,632 in 1937 and 1,508 in 1936.

The meeting included an inspection of the Fuel Research Station and Mr. Beale reported that a great deal of work is being done at this station on Hydrogenation, including the actual manufacture of hydrogen, the materials being processed including coal, tar and oil.

Speaking of a visit to the Tottenham Gas Company Mr. Beale said, "You will be interested in knowing that in the Tottenham area there are 450 miles of street lighting, 350 miles of which are gas lighting."

A complete set of the valuable reports and papers presented at the meeting is on file at American Gas Association Headquarters.

## \$50.00 Prizes Offered to Students

**T**O the student completing the home study course on American Gas Practice offered by Columbia University and to the student completing the home study course on Natural Gas offered by the University of Kansas during the year from Sept. 1, 1938, to Sept. 1, 1939, and attaining the most comprehension of the subject matter will be awarded a prize of \$50.00. These two substantial cash prizes are being offered by the Committee on Personnel Practices of which Paul W. Herring of The Peoples Gas

Light and Coke Company of Chicago is chairman.

Selection of the recipients will be made by educators conducting the courses—Prof. Jerome J. Morgan of Columbia University and Prof. C. M. Young of the University of Kansas. Both courses are sponsored by the American Gas Association and are supervised by advisory committees made up of eminent gas engineers appointed by the Association. The arrangement has proved to be ideal and the courses have met with universal satisfaction.

The course on American Gas Practice offered by Columbia University is divided into two parts. Part I treats the production of manufactured gas; Part II deals with the distribution and utilization of gas.

The course on Natural Gas offered by the University of Kansas covers the entire field of natural gas from origin to utilization.

Detailed information on these two home study courses, enrollment in which can be made at any time, will be gladly supplied by the Association.

## Frank R. Coates Dies

**F**RANK R. COATES, president of the Cities Service Oil Company of Pennsylvania and close associate of Henry L. Doherty for more than 25 years, died June 27. He was sixty-nine years old on June 20. He was a director of the Cities Service Company for sixteen years and was an outstanding leader of the oil and public utility industries.

## Convention Calendar

### JULY

- 27-28 West Virginia Oil and Natural Gas Association  
Charleston, W. Va.

- 10-14 National Safety Council  
Stevens Hotel, Chicago, Ill.

- 24-28 National Hotel Exposition\*  
Grand Central Palace, New York, N. Y.

- National Metal Congress and Exposition\*  
Detroit, Mich.

### SEPTEMBER

- 5-9 American Chemical Society  
Stevens Hotel, Milwaukee, Wis.  
14-16 Pacific Coast Gas Association  
Santa Barbara Biltmore Hotel, Santa Barbara, Calif.  
14-16 National Petroleum Association  
Hotel Traymore, Atlantic City, N. J.  
15-16 Empire State Gas & Electric Association  
Lake Placid Club, Lake Placid, N. Y.  
19-20 Wisconsin Utilities Association—Transportation Section  
Lawsonia, Green Lake, Wis.  
23-24 Wisconsin Utilities Association—Accounting Section  
Lawsonia, Wis.

### OCTOBER

- 3-6 American Transit Association  
Royal York Hotel, Toronto, Ont.  
10-13 American Gas Association  
Atlantic City, N. J.

### NOVEMBER

- 1-2 The Institution of Gas Engineers  
London, England  
14-18 American Petroleum Institute  
Stevens Hotel, Chicago, Ill.

### DECEMBER

- 5-10 National Exposition of Power and Mechanical Engineering\*  
Grand Central Palace, New York, N. Y.

\* Includes exhibit sponsored by A. G. A. Industrial Gas Section.

## Accounting Section

D. H. Mitchell, Chairman

H. W. Hartman, Secretary

H. A. Ehrmann, Vice-Chairman

# How Other Industries Are Personalizing Their Service

By F. C. BUSCHER

Consolidated Edison Company of New York, Inc.

THE supervisor of a small office group in a large company put down his telephone and turned to a visitor in his office. "That operator is very good," he said, smiling, and continued half apologetically, "I suppose it is my egotism that makes me say so, but she has learned my name and calls me by name whenever I make a call, and it makes me feel good." In an organization employing thirty-five telephone operators who handle calls for twenty-five hundred telephone extensions the operator's simple courtesy in addressing a telephone used by name was unusual and merited the approval it won.

### Humanizing a Company

This supervisor's reaction has a distinct bearing on a problem which has long been recognized by the executives and personnel administrators of our industry—that of discovering a means of preventing the individual customer from feeling that the large company is an impersonal machine to whom the customer is as impersonal as an account number. Our physical service is as nearly perfect as technicians can make it, and is improved as rapidly as science advances, but the problem of what we might call "personalizing" our service to our customers is one concerning which much remains to be accomplished. This problem is not peculiar to the gas industry but is found in all large business organizations. It may therefore be of interest to us to consider the means by which some of these organizations seek to supply to the public the individual service it likes without sacrificing the efficiencies attained in large-scale production.

Hotels have been foremost in the field in devising means for giving their customers personalized service, and the following methods used by one large hotel chain are enlightening:

Employees are impressed with the importance of knowing the customer by name. The room clerk is trained to remember names, to review his daily list of reservations in anticipation of guests' arrivals, and to read names written upside down on the register. He is thus enabled, from his position at the desk, to identify the expected guest upon registration and to address him by name. The bellboy is not summoned by a call of

"Front," but by a buzzer and is asked "Will you show Mr. Roberts to his room?" Families may be escorted to their rooms by the Assistant Manager.

The bellboy is trained to be tactful in his contacts with the guest, and to anticipate the guest's wishes, if possible. He asks the guest if he is expecting mail, and ascertains if it is his first visit to the hotel by asking, "Have you stayed with us recently, Mr. Roberts?" He acquaints the first-time guest with such services as the radio and the servitor and gives him information about the dining room and other items of interest, being extremely careful not to annoy the customer nor to draw attention to the services of the hotel in a manner that appears to be boastful.

### Developing Employees

The room clerk on the guest's floor is equipped to be practically a secretary for him, who will take information about where and when he is going, will relay messages if required, and will follow any instructions for delivering them.

The hotel management is eager to develop its employees. Outside service-sampling agencies are employed to check up on the service (the employees understand that this may happen at any time), their function being not to provoke employees, but simply to observe if the proper routines are followed. A service report on each employee is made periodically, listing his good points and bad points, and is discussed with him.

Employees are given definite help in developing the more subtle forms of diplomacy. For example, employee discussions develop a feeling of agreement that a waiter who repeats "Pell Mells" after the guest who requests "Pell Mells," and "Paul Mells" after the guest who requests "Paul Mells," is the one who makes the guest think himself right and the hotel management think the waiter just right.

Constant experimentation is made with new methods of pleasing the customer. For example, the customer who leaves his hat and coat in one hotel check room finds, when he reclaims them, that they

have been brushed. Any loose button on his coat is sewn on, and a small sticker affixed to the under side of the button calling his attention to the unusual service given by the check room.

Customer reactions to certain services are analyzed and used in determining future policies. A method which is effective in one locality is sometimes found to be a failure in another. Every complaint of a guest is given personal attention and everything within reason done to satisfy and please him. A history of each guest is maintained by a card system listing any individual preferences, such as a south room, an extra pot of coffee with meals, etc.; and at subsequent visits these preferences are made known to the employees performing the various services affected.

### Transportation Experience

A metropolitan transportation company has met its problems in a similar way. Street car and bus operators are not only given the "Be courteous" slogan and the usual basic rules for courtesy to customers but receive some instruction in the application of psychological principles, being taught such fundamentals as that people resent very strongly having their own mistakes called to their attention; and that, while they recognize the importance of rules to govern the conduct of employees, they are likely to object to rules restricting their own behavior.

The operators themselves are asked to contribute their suggestions for the solution of constantly recurring problems and helpful replies are circulated among the other operators. The benefit to them from this plan is twofold: they receive definite advice as to how to handle certain difficult passenger situations; and they are encouraged to bring in their own questions for discussion. The following examples of the advice of some operators to their fellow employees are typical:

What should the operator do when a passenger presents a transfer several hours' old? The suggestion is that the operator should not make the natural reply "You cannot ride on this. It is too old!" but to say, rather, "Have you another transfer in your pocket? This one has expired." The operator thus refrains from accusing the passenger of any inten-

tion of doing wrong and does not remind him of the company's rules, but tactfully offers him an alibi.

What if a passenger brings bulky bundles into the car or bus? His action may be overlooked unless he occupies too much seat or floor space to the inconvenience of other passengers. In such a case, the operator should suggest good humoredly that the bundle be placed in a corner out of the way of the other passengers.

One point is stressed constantly—that the operator should try to imagine himself in the same position as the passenger; and to treat the passenger as though he, too, had experienced the same situation and understood its difficulties.

#### *Effective Use of Correspondence*

Some organizations, the nature of whose business is such that they do not

come in direct personal contact with their customers, use correspondence to very good effect in building up customer good-will. A mail order house which does a large foreign, as well as a nationwide domestic business, employs a trained staff of correspondents—in addition to the usual complaint adjusters—to reply to customers' letters. Customers in rural sections often write long and very personal letters and each of these receives the individual attention of an adjuster and a reply from the correspondent.

A nationally known rural magazine also makes a point of answering all letters received from customers, and gives personal advice on agricultural and other rural problems. In fact, customers are encouraged through the columns of the magazine to write to the editor.

The services offered by the large rail-

road companies and air lines have attracted much attention. Air line hostesses, with their background of nursing training and their reputation for serving a dinner, making a fourth at bridge, or soothing a passenger's recalcitrant infant with equal equanimity, have become national figures—one might say, national heroines. The companies who employ them estimate highly the value of giving the customer personalized service rather than cut and dried formal courtesy. To carry out their methods, those companies place their dependence upon a carefully selected and very highly trained personnel.

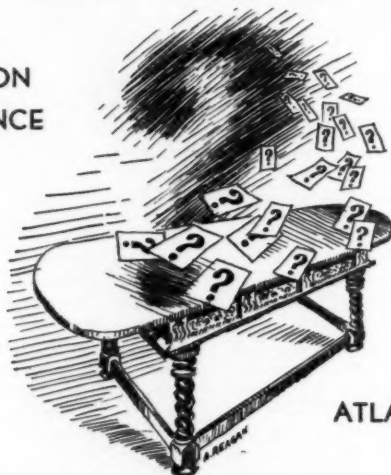
A large western organization operating railway trains, busses, and a system of hotels is typical of this group, and has introduced unusual features for serving the public more effectively. For example, it has placed a limited day-coach train in operation which, in appointments and service, is as fine as the best train on the line. Special cars are provided for women and children, with hostesses in attendance. Such services as pillows and tray service for meals are provided without extra charge. On the bus trips operated by this company, one bus driver is assigned to a group during the six-day tour over which he operates the car. The bus drivers are college students who must pass rigid driving tests, must have a knowledge of the country through which they are traveling, and must be tactful, courteous, and skillful in handling heterogeneous groups of people. The driver is responsible for the comfort and welfare of his group throughout the trip. He introduces the members of his party personally to the hotel manager and even concerns himself with their entertainment during the evening.

Every business organization interviewed on the subject believes that its efforts to give the customer personalized service do produce results. Despite the fact that the chronic kicker will be found in every business, the general public is very quick to respond to a sincere attempt to respect and anticipate its wishes—with the emphasis on the *sincere*. The importance of carrying out such a program with real enthusiasm, and not as a matter of routine, cannot be overemphasized.

The nature of our industry does not make it feasible for us to follow every method used in a hotel or a selling organization. But the underlying principle is identical in every form of business—to make the customer feel that the company recognizes him as an individual; that he is paying for his service, and is entitled to his money's worth; that we are in business to serve him, and realize that our success depends on him; that in the final analysis he pays our salaries and he is our "Boss" in the truest sense of the word.

## Lay Your QUESTIONS on the Table

at the  
LUNCHEON  
CONFERENCE



at  
ATLANTIC CITY

## Knotty Problems Will Be Unravelled

- Do you want to know a bit more about your job?
- Are you curious about how the fellow having your kind of job in another company reduced his costs?
- Do you wish to get a new "slant" on the way to solve that problem which has long puzzled you?
- Are you contemplating installing something new and would like to know if any other gas man has tried it?
- Are you willing to tell another how you succeeded, or why you failed, with that pet idea last spring?

If your answer is "YES" to all these questions, then you must come to the A. G. A. Convention in October and participate in the Luncheon Conference of the Accounting Section.

If you have any questions you would like discussed, please send them to T. S. Lever, c/o Philadelphia Gas Works Company, Philadelphia, Pa.

## Commercial Section

Hugh Cuthrell, Chairman

J. W. West, Jr., Secretary

F. X. Mettenet, Vice-Chairman

# Sales Promotion Keynote of Home Service Conference and Training Course

**A**T the Home Service Conference and Training Course in Kansas City, Missouri, the week of June 7, a large registration gave enthusiastic support to a fine group of papers depicting every phase of home service operation carried on in the gas industry today. More than 200 were in attendance including 73 representatives of schools and colleges in addition to a representative group of

By **JESSIE McQUEEN**

American Gas Association

Another means of presenting sales-slanted information being utilized by home service today—that of drama in cooking demonstrations—was illustrated by Elizabeth Lynahan, of The Peoples Gas Light & Coke Co., in Chicago, who

ment was developed by H. Vinton Potter of the Oklahoma Natural Gas Company. Illustrating his talk, Mr. Potter showed how home service in smaller companies might give effective assistance in company displays.

How home service uses national advertising was discussed by Ruth Shank of the St. Louis County Gas Co., Webster Groves, Mo. Miss Shank pointed out



"Get Acquainted Dinner," sponsored by the Association of Gas Appliance and Equipment Manufacturers, which was a highlight of the conference

workers already in home service. Speakers contributing to the program were from California, New Jersey, Western Canada, Texas, as well as the Middle and Southwest areas.

Mildred Clark, as chairman of the Home Service Committee, presided most efficiently at all sessions, outlining at the start the reason for giving the course. This was the second such conference—the first one being given last year at the A. G. A. Testing Laboratory in Cleveland at the request of educators who maintained that a course of this character would give much assistance in picturing just what Home Service work involved.

Home Service as an aid in sales promotion was the keynote of the meeting. This was brought out in dramatic fashion by the use of skits and demonstrations. Home call work, its procedure and preparation, was the responsibility of the home service department of the Oklahoma Natural Gas Company. Louise Anderson introduced the material and participated in the dialogue as Mrs. Home-maker. There were two skits with Harriet Hunter and Rosemary Locke playing the parts of home service girls making follow-up calls.

presented a truly "model" demonstration. It was carefully timed, outlined to show the efficient features of the equipment and sparkling in its presentation. The setting of this demonstration was a most effective kitchen display loaned by the Whitehead Metal Products Company in cooperation with the Ruud Manufacturing Company.

### Water Heating Skit

The other skit of the program, entitled "Drama in Water Heating," was presented by the home service department of the Kansas City Gas Company, under the direction of Colleen Fowler. This skit, in three scenes, was acted out by members of both the home service and sales departments. It brought out in an amusing fashion the need for automatic hot water and the greater joy of living in the home when such service is provided.

National Advertising was given a complete discussion, with T. J. Strickler, vice-president and general manager of the Kansas City Gas Co., and chairman of the Committee to Conduct National Advertising, describing the industry program under way for two years and emphasizing the new program for 1938. Home service tie-in with the display depart-

that a concerted effort of home service to dwell continually on the slogans, developed by the advertising committee would build these slogans into community prominence. For instance, "Gas Does the Four Big Jobs," could be featured in demonstrations, on recipe sheets, in mail pieces and posters.

Instruction on appliances was conducted by specialists in this work. The modern gas range was presented by C. C. Young, of the Gas Service Co., Kansas City, who climaxed his talk with the latest information on the C.P. range activity. Thermostats and automatic devices were discussed by J. E. O'Hagan, of the Robertshaw Thermostat Co. Della L. Cordery, of the Public Service Electric & Gas Co., Newark, New Jersey, presented many practical suggestions that could be carried out by home service directors to feature the advantages of the modern gas ranges in top stove cookery, ovens and broilers. In illustrating her talk, Miss Cordery exhibited a group of appliances effectively used on modern flexible gas burners.

J. C. Sackman, Northern Indiana Public Service Co., Hammond, Indiana, told the home service people what they needed to know about water heating with gas.

Ways of featuring its many uses were outlined and these were illustrated by the skit which followed.

House heating with gas was the subject assigned to Dr. F. E. Vandever, of the A. G. A. Testing Laboratories, Cleveland, Ohio. Among the divisions discussed were: "How to emphasize the benefits of gas house heating to the customer"; "How to inspire home owners to purchase the best house heating"; "General house heating problems"; "Mechanical parts of central heating appliances" and "New developments in house heating."

C. F. Cushing, of the Bryant Heater Co., followed this discussion with a talk on "Air Conditioning with Gas."

The cycle of operation in gas refrigeration was told by Jane Tiffany Wagner, of Servel, Inc. In the following discussion R. C. Bonseigneur, district sales supervisor, assisted Miss Wagner in pointing out the new features of the gas refrigerator.

The mechanics of home service operation were described from many angles. Vera Carter Ault of the Public Service Co., of Colorado, Denver, pointed out the uses made of Gas Hospitality House, —an auditorium set up to dramatize natural gas to the public. Home service administration, as conducted in a company serving a large territory, was described by

Editor in the Oklahoma Publishing Co., of Oklahoma City, under the name of "Aunt Susan." Pointers on the type of material drawing the most response from women readers were outlined by Mrs. Adams as she illustrated these points through subjects discussed in her own column.

Unusual home service presentations, where home service is taken to local communities and work given to social leaders; to community groups; and to maids using equipment, was presented with dash and snap by Helen Hatcher, of the Memphis Power & Light Co.

Home service in Canada, with special emphasis on Women's Club programs, created an interesting presentation by Elsie Currie, The Canadian Western Natural Gas, Light, Heat & Power Co., Ltd.,

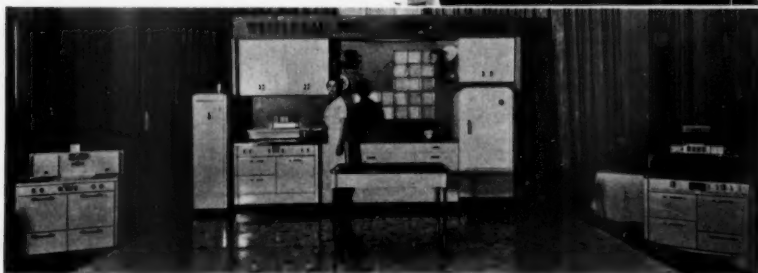
pare college students who desired to enter home service work.

Representing the colleges, Dr. Martha S. Pittman of Kansas State College at Manhattan, outlined the types of subjects being given in home economics courses which would prepare students to enter the business field,—home service being considered in this section. Dr. Pittman read excerpts of these college courses as given in different midwestern colleges.

Many group conferences were provided during the week's program as an opportunity for students present to discuss home service work with experienced home service directors. The committee of ten assigned to direct these conferences were: Nellie Fredeen and Vivette Gorman, of Chicago; Ann Sutter, Pittsburgh; Vera Ault, Denver; Mary Louise



F. X. Mettenet, vice-president, The Peoples Gas Light & Coke Co., addressing the conference on "What the Sales Manager Expects of Home Service"



Drama in demonstration, as presented by Elizabeth Lynaban in a modern kitchen setting

Mary Alice Crosson of the West Texas Gas Co., at Lubbock. Home service administration, as developed in a large department serving a metropolitan area was presented by Anne Sutter, of the Equitable Gas Co., Pittsburgh.

Newspaper cooking schools, carried out with such success by the Southern Counties Gas Company, were described and illustrated with slides by Margaret S. Lackland of Santa Ana, California. Through "Subtle Selling on the Sales Floor," Ruth Menoher, of the Iowa-Nebraska Light & Power Company, Lincoln, called attention to a new trend in home service. Margaret Marable, of Servel, Inc., described how home service had reached a wide group of customers in the Lone Star Gas System of Texas through the use of radio programs.

"Home Service in the News" was discussed dramatically by Mrs. Mart Adams, who conducts her column as Woman's

Calgary, Alberta. "Classes for Juniors" in company quarters as an activity comprising all the types of classes for school groups and children's groups in the Laclede Gas Light Company of St. Louis, was outlined with clarity by Mary Louise Hurster. Classes in schools, upon request of teachers of home economics, were described by Betty Boyle, of the Gas Service Company. Miss Boyle called attention to the use of the A. G. A. book, "Modern Kitchens for Home-making Instruction."

"Putting the Most into the Home Service Dollar" was the opening subject of the home service conference. It was presented by Jessie McQueen, home service counsellor of the American Gas Association who described the characteristics of home service work and the type of people needed for it. Miss McQueen also mentioned courses which could best pre-

Hurster, St. Louis; Ruth Menoher, Lincoln; Clarabelle McLeod, Muncie; Ruth Bush, Ann Arbor; and Colleen Fowler and Betty Boyle, of Kansas City.

"What the Sales Manager Expects of Home Service," presented by F. X. Mettenet, vice-president, The Peoples Gas Light & Coke Co., was received with enthusiasm. He contributed many ideas on what the sales manager desired and outlined means of accomplishment. "There is Nothing Like Gas," the slogan of national advertising, gave W. E. Leverette, of the Nashville Gas & Heating Company, an opportunity to discuss the subject of competition and it was presented with drama and convincing enthusiasm.

Ada Bessie Swann, director, home service center of *Woman's Home Companion*, presented information on Kitchen Planning compiled as a result of a contest conducted among home makers by this magazine. Through her experience as a former home service director in the Public Service Co. of New Jersey, Miss Swann was able to adapt these findings to ways of presenting kitchen planning in home service work.

New promotional developments in kitchens were described by R. J. Canniff of the Ruud Mfg. Co., who explained the

(Continued on page 287)

## Industrial Gas Section

Hale A. Clark, Chairman

Eugene D. Milener, Secretary

Frank H. Trembly, Jr., Vice-Chairman

# Absorption Refrigeration for Summer Air Conditioning with Gas



W. F. Friend

**I**N spite of recognized deficiencies in the old absorption apparatus, the method never became totally eclipsed. In Europe particularly, technical interest has been maintained and research work carried on for improvement of the established designs and for development of new alternatives. However, recent attention has been focused mainly on applications for extremely low temperatures now being demanded for industrial processes, rather than on zone of temperatures above ice freezing, used for comfort air conditioning.

### New Interest Aroused

In U. S. A., interest is being newly aroused in the ammonia-water cycle. For example, Professor Jennings of Lehigh University is reviewing the old data available to engineers in the past, on thermal properties of ammonia-water mixtures, and is preparing new tables eliminating certain inaccuracies and inconsistencies detected. His studies include analysis of various cycles, and he has already carried on a substantial amount of laboratory research using apparatus of commercial size. Several other authorities on refrigeration have reported in technical magazines, studies of theoretical possibilities with new modifications of old cycles, and with alternative types of apparatus.

Work done over the years by the manufacturer of the Electrolux refrigerator is well known to the gas industry; units up to 2-ton rating have been built for test, and others up to 4 tons laid out on paper. Present status of these investigations will be discussed in the 1938 report of your Air Conditioning Committee. You doubtless know also of work done in development of absorption method for household refrigerators, by Grunow under the name of Thermene, by Frigidaire several years ago, and by producers of kerosene-burning intermittent operating refrigerators for rural

By W. F. FRIEND\*

Ebasco Services Inc., New York, N. Y.

Due to space limitations only that portion of Mr. Friend's paper calling attention to a renewal of interest in absorption refrigeration and presenting a complete description of one absorption machine recently developed especially for summer air conditioning, is printed below. The first part of Mr. Friend's paper discussed several methods for using gas in air conditioning, placing special emphasis on the possibilities of absorption refrigeration machines for small and moderately sized installations. He also traced the decline in popularity of this method which coincided with the rise of compression refrigeration.—Editor

service, sold mainly through mail-order houses.

Other sources of stimulation, besides trade groups concerned with promoting use of fuels, have been district steam utilities as well as manufacturers of complete boiler-burner units for steam-heating systems in residences and small commercial establishments.

About five years ago, a number of firms brought out new models of boilers specially designed for oil and gas firing, and equipped with burners fully coordinated therewith. It was believed that these would find much broader market if they could be made useful for year-round services, by means of some method of summer-comfort air conditioning using low-pressure steam.

However, efforts at that time directed toward revival of absorption refrigeration did not result in making such apparatus commercially available. As for district steam companies, they confined their efforts to steam-jet refrigeration and to the turbine drive for centrifugal compressors, although the potentialities of absorption refrigeration were recognized.

### Williams Air-O-Matic Units

In the course of a general study of methods and apparatus for using gas fuel in summer air conditioning, information on technical and commercial status of Williams Air-O-Matic absorption units has re-

cently been secured. The study was undertaken in connection with the formulating of policies regarding promotion of gas-utility service. It led to the conclusion that absorption refrigeration units of moderate size and general characteristics similar to Air-O-Matic represent one of the most important means by which gas utilities may participate in the rapid growth of air conditioning.

### History of Development

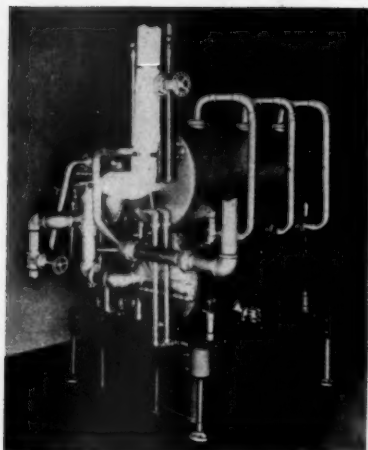
Research and apparatus development for absorption refrigeration has been in progress for eleven years. It was recognized in the beginning that prejudice existed against the old ammonia absorption system, for comfort air conditioning, because of high working pressures involved (exceeding 250 lb. gage) and because economy when operating under conditions appropriate to air conditioning was poor. Accordingly, fundamental research work was undertaken to discover new substances for use as refrigerant and solvent, in place of ammonia and water. In addition to having suitable thermo-dynamic properties, it was necessary that the compounds be chemically stable and that they produce no corrosion in apparatus throughout the range of working temperatures to be used.

Analysis of laboratory results indicated that certain new substances not previously known might prove desirable and such materials were produced in the laboratory by synthesis. One of the major difficulties thus encountered has been high cost of new chemical substances found desirable. These in some cases cost as much as \$1 per lb. for quantities needed in full-size apparatus built for shop test. Design of equipment and amount of heat-transfer surface provided were often dictated by need for minimum volume, to hold down the expense for working charge of chemicals.

A decision early to be made was temperature level at which the apparatus should operate. Studies involving both theoretical and practical considerations, confirmed by laboratory test, indicated that temperatures corresponding to steam pressure available from house-heating boilers would give satisfactory economy. Furthermore, designs using steam were easy to develop and involved reasonable construction cost. Accordingly, a top limit of 265° F. was adopted, for experimental work with chemicals chosen for refrigerant and solvent. This gives 13° F. leeway above temperature of saturated steam at

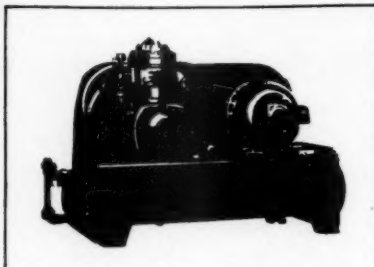
Presented at Industrial Gas Session, A.G.A. Natural Gas Department Convention, New Orleans, La., May 9, 1938.

\* Member, Industrial and Commercial Air Conditioning Committee, Industrial Gas Section.



Williams Air-O-Matic absorption refrigeration unit

Figure 1—Absorption refrigeration unit compared with compression unit



Electric Freon motor-driven unit

COMPARATIVE SPACE REQUIREMENTS OF 10-TON UNITS WATER COOLED, WITH SHELL-AND-COIL CONDENSERS

	Dimensions, In.			Floor Area Sq.Ft.	Volume Cu.Ft.	Net Wt. Lb.
	Width	Lgtb.	Hgt.			
Absorption	46	48	63	15.3	80	2400
Compression	33	70	45	16.0	60	1740

15 lb. gage—maximum allowable working pressure for house-heating boilers.

Another reason for adhering to 15 lb. minimum steam pressure was the requirement that absorption apparatus should be adapted to district-steam service in localities where this is available. It was believed fairly common practice for steam

utilities to lower the pressure carried in underground distribution mains during the summer, to 15 lb. gage or less, in order to diminish condensation and leakage losses. Applicability of absorption refrigeration to railroad-car conditioning was also a factor, and train-line pressures seldom exceed 15 lb.

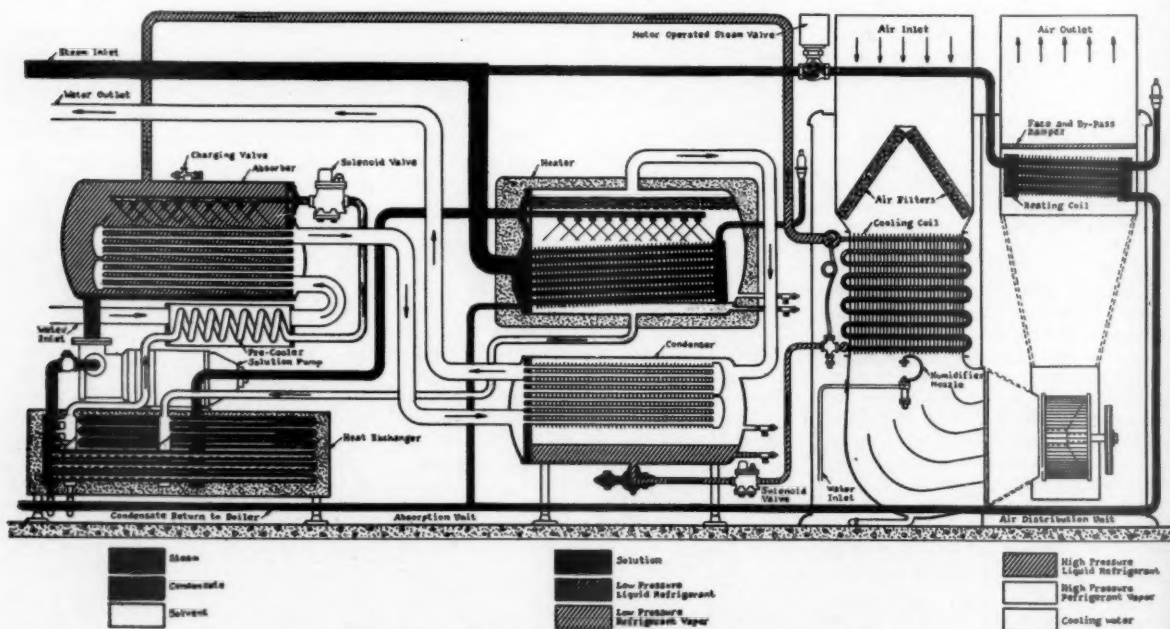
Working along these lines, the present design of absorption units was gradually evolved. Ultimate standardization of parts and ability to obtain unified design over entire range of capacities contemplated—5 to 20 tons—was provided for.

The development program also included auxiliary apparatus, such as evaporative condensers, chilled-water coolers and air-conditioner units specially adapted to the characteristics of the refrigerant used. Control features were given careful consideration in order that the system when installed should be entirely automatic and reliable. Provision was made for coordinating summer functions with winter service, so that complete year-round operation, including intermediate-season ventilation, should be available at will by manipulation merely of a centralized control device.

#### Design Features

Arrangement of absorption apparatus is shown at the left, in Figure 1. At the right is shown for comparison a typical motor-driven compression unit of equivalent output. Both units are rated nominally at 10 tons refrigerating capacity. Dimensions and approximate weights given at bottom of Figure 1 indicate that absorption type, carefully designed for compactness, is not much handicapped by bulk.

Disposition of component parts of apparatus is indicated diagrammatically in Figure 2. It will be observed that the heater shown is operated with steam. Also included on the diagram, at the right, is the air-conditioning unit, containing cooling coil in which liquid refrigerant is ex-



Air-O-Matic Water Circulating Absorption Unit and Air Distribution Unit

Figure 2

panded and vaporized, then returning to the absorber.

A limitation of this type of absorption apparatus is in permissible relative location of refrigerating unit and air conditioner. These can be separated from each other not more than a few feet, either horizontally or vertically, owing to characteristics of refrigerant used, which gives only low pressure head available to cause flow of the liquid. Another factor is the special design required for the evaporator coil, also due to peculiarities of the refrigerant. Both of these limitations can be overcome by recourse to a chilled-water cooler with circulating pump; such auxiliary device has already been worked out, but initial cost and power consumption involved have heretofore restricted its application to special cases only.

Within the past year, change has been made in refrigerant used, adopting methylene chloride, commonly known as Carrene, in place of dichloromonofluoromethane, which is one of the Freon series. Solvent remains as heretofore, namely dimethyl ether of tetraethylene glycol, chemically related to Prestone anti-freeze for automobile radiators. Operating pressure throughout the system now ranges between atmosphere and a fairly high vacuum—about 23 in. mercury—compared with 30 lb. gage and 5 in. mercury respectively in the preceding model. This drop in working pressures has substantial advantages, and incidentally avoids any objection that might be raised to the apparatus using high pressures, installed in residences.

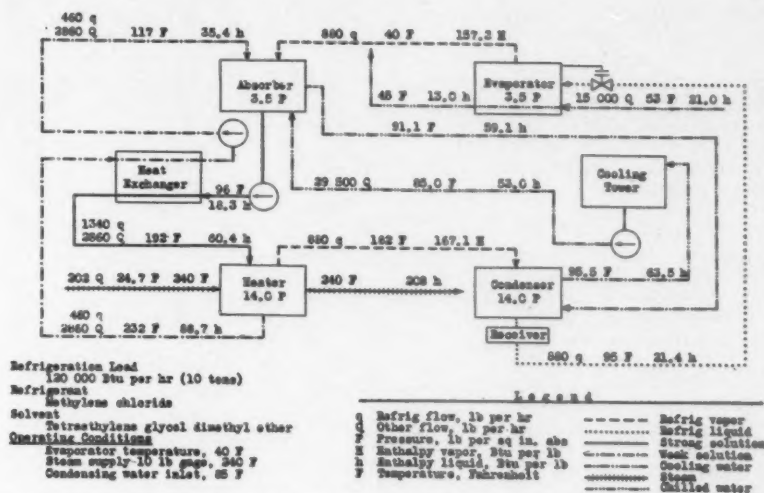


Figure 3—Williams Air-O-Matic absorption refrigeration unit. Computed heat balance—1938 model

Detailed description of Air-O-Matic absorption refrigeration units, together with performance data, has already appeared in air-conditioning and refrigerating technical publications, namely *Heating Piping and Air Conditioning* for April, 1937, and *Refrigerating Engineering* for May, 1937. These are by G. F. Zellhoefer, engineer in direct charge of the development from its beginning. Results of investigations of substances suitable for use as solvent and re-

frigerant were reported by the same author in the May, 1937, issue of *Industrial and Engineering Chemistry*.

#### Computed Heat Balance

Overall performance of the Air-O-Matic refrigeration unit has already been indicated in Table I. To substantiate the figures, which were predicated on test data, a complete heat-balance diagram has been prepared and quantities involved through-

TABLE I  
HOURLY OPERATING COST OF ABSORPTION REFRIGERATION UNIT COMPARED WITH FREON COMPRESSION SYSTEM

Absorption Refrigeration		Cents Per Ton-Hr.	Compression Refrigeration		Cents Per Ton-Hr.
Fuel:			Compressor power: 1.02 kw./ton @ \$0.02		= 2.04
$\frac{20 \text{ lb. stm./ton} \times 982 \text{ B.t.u./lb.}}{1000 \text{ B.t.u./cu.ft.} \times 0.75 \text{ eff.}} = 26 \text{ cu.ft./ton} @ \$0.50$		= 1.30	Auxiliary power:		
Auxiliary power:		Hp./Ton	Condensing-water pump		0.15
Solution pump		0.10	Cooling-tower fan		0.05
Evaporative condenser blower		0.075			0.20
Evaporative condenser pump		0.083	$0.20 \times 0.746/0.85 = 0.17 \text{ kw.} @ \$0.02$		= 0.34
		0.26	Water:		
$0.26 \text{ hp.} \times 0.746/0.85 = 0.23 \text{ kw.} @ \$0.02$		= 0.46	$\frac{3.0 \text{ gpm./ton} \times 60 \text{ min.} \times 0.02 \text{ loss} \times 1/7.5}{\text{gal./cu.ft.}} = 0.48 \text{ cu.ft.} @ \$1.50 \text{ per M.C.F.}$		= 0.07
Water:					2.45
$\frac{6.5 \text{ gpm./ton} \times 60 \text{ min.} \times 0.02 \text{ loss} \times 1/7.5}{\text{gal./cu.ft.}} = 1.04 \text{ cu.ft.} @ \$1.50 \text{ per M.C.F.}$		= 0.15			
		1.91			

#### NOTES

Steam for absorption unit assumed at 12 lb. gage, with condensate returning at 212° F. to low-pressure heating boiler operated at 75 per cent efficiency with gas fuel.

Consumption at 20 lbs. per hr. per ton predicated on manufacturer's figure of 19 lb. for most favorable conditions and 22.5 for adverse conditions.

Heat dissipation by built-in evaporative-condensing feature, involving 6.5 gpm. per ton rate of flow to dissipate 31,000 B.t.u. per hr., representing 9.5° F. temperature range in equivalent cooling tower.

For Freon compressor, heat dissipation taken at 15,000 B.t.u. per hr. in cooling tower, representing 10° F. temperature range.

Comparison predicated on supplying liquid refrigerant to air-conditioning apparatus, in both cases.

out the cycle computed. Results are shown in Figure 3.

This is predicated on condensing water at 85° F. obtainable from a cooling tower, on steam at 10 lb. gage supplied to the heater, and on operation of the evaporator to produce 40° F. temperature in the air-conditioner coil; numerical values shown are for a 10-ton unit. Data pertaining to characteristics of refrigerant and solvent, and to heat-transfer performance of component parts of the apparatus were supplied by the manufacturer, and are based on comprehensive laboratory tests.

Computation confirms the steam consumption at 20 lb. per ton-hr. and power input to solution-pump motor 0.07 kw. per ton; improvement over superseded model using another refrigerant is something over 10 per cent. For comparison, performance that might be expected from an ammonia-water machine under similar conditions has been computed; this shows 23 lb. steam required per ton-hr. and 0.07 kw. per ton for pump.

#### *Development of Gas-Fired Heater*

All Air-O-Matic absorption units so far produced have been designed to use low-pressure steam. However, in many southern states which represent large potential air-conditioning markets because of high temperatures sustained over a long summer, heating systems in residences and small commercial establishments seldom have steam boilers. Direct-fired warm-air heating plants are the rule. Furthermore, similar means of heating are of growing importance also in the north, inasmuch as they lend themselves more economically to year-round air-conditioning service.

To meet this situation, the manufacturer is now actively engaged in perfecting a direct gas-fired heater to eliminate need for generation of steam. Results obtained are not yet conclusive, but it appears that efficiency of gas utilization somewhat better than 70 per cent is attainable. Immersion-type burners with combustion tubes surrounded by a buffer liquid, to avoid local hot-spots that might have deleterious effect on refrigerant or solvent, are employed in one of the designs. As soon as remaining problems in the design are worked out, installations using the direct-fired heater will be made by one or more natural-gas utility companies. Results in actual operation, together with information regarding this new and important development, will be made available to the entire gas industry.

#### *Installations Made*

A list of Air-O-Matic absorption installations sold by manufacturer shows 35 units aggregating nearly 500 tons rated capacity. Of these, the earliest was placed in Crane Company building at Chicago Exposition about May, 1934, and during 1935 six more installations followed in restaurants, residences and a manufactured-gas utility office. Nine units went into service in 1936 and double this

number in 1937. Of total installations, six are operated on district steam service, ten on steam generated with gas fuel, and eighteen with oil fuel.

Included in the list of gas-utility office installations during 1937 are two for Southern Counties Gas Company at Pomona and Santa Ana, California, one for Pacific Gas and Electric at Modesto, California, and one for Consolidated Gas, Electric, Light & Power at Baltimore. These are in addition to one for Union Gas & Electric at Bloomington, Illinois, made during 1935.

Engineers of utility companies familiar with the mentioned installations have reported uniformly favorable experience with the equipment, based on observations during erection, testing and subsequent operation. They concur in opinion that absorption refrigeration of Air-O-Matic type probably constitutes the best

of available equipment for the residential field.

#### *Conclusion*

In conclusion, the prospect for summer air conditioning with natural-gas fuel by means of absorption refrigeration is encouraging. This kind of apparatus is the direct equivalent of conventional motor-driven compressor units, and is likewise adapted to standardization and quantity production, when the development stage has been passed. It has definite advantages for residential and small commercial requirements. Although not available for general sale and installation during 1938, some additional absorption installations will be made by gas utilities and other concerns this year. The gas industry as a whole should cooperate with equipment manufacturers to the fullest extent, in bringing absorption refrigeration to the fore.

## Conference Stresses Commercial and Industrial Gas Sales Topics



*Zenn Kaufman speaking on showmanship in business at the luncheon session*

**M**ORE than 175 enthusiastic delegates, representing both manufactured and natural gas utilities, attended the A. G. A. Hotel, Restaurant and Commercial Sales Conference, sponsored by the Industrial Gas Section and the Metropolitan Industrial Gas Sales Council. The conference, held at the Commodore Hotel, New York City, May 23-24, presented a strong program under the direction of Hale A. Clark, Detroit City Gas Co., chairman of the Section.

The keynote address was delivered by Nils T. Sellman, assistant vice-president, Consolidated Edison Co. of New York. Taking as his topic, "Gas Fuel in Small Commercial Business," Mr. Sellman briefly enumerated the difficulties encountered in selling this class of customer and then out-

lined a most interesting sales campaign.

The remainder of the first session was devoted to a symposium, "Getting 100 Cents of the Commercial Cooking Dollar," introduced by Alva L. Palmer, chairman, Metropolitan Industrial Gas Sales Council, New York. Speakers included Harry O. King, Standard Gas Equipment Corp., Boston, on "Cooking"; Lawrence R. Foote, chairman, Commercial Cooking and Baking Committee, on "Baking"; Kenneth L. Childs, Automatic Food Equipment Co., Inc., Somerville, on "Advanced Technique in Fat Frying"; and Thomas J. Gallagher, The Peoples Gas Light & Coke Co., Chicago, on "The Chicago Modernization Campaign."

An internationally known authority on business promotion, Zenn Kaufman, addressed the luncheon meeting on the subject

of "Showmanship in Business." This talk brought out a number of elements in salesmanship in business that were particularly valuable to an audience which relies on personalized, face-to-face selling as does the gas industry.

Frank H. Trembly, Jr., vice-chairman of the Industrial Gas Section, presided at the afternoon session. Alexander Forward, managing director, American Gas Association, made a short address of welcome to the delegates.

"Selling Complete Gas Service to Commercial Customers" was the title of an interesting paper delivered by John S. McElwain, The Peoples Natural Gas Co., Pittsburgh. The following paper on "Garages and Other Establishments" by Robert D. MacDonald, Consolidated Edison Co. of New York, was a revelation of the number and diversity of gas-fired appliances that can be sold in those places.

A comprehensive sales campaign for gas water heaters was described by L. D. McClure, Philadelphia Electric Co., who observed that automatic gas water heaters can be sold almost anywhere in the commercial market. Henry M. Finn, president, Hydro-Therm Sterilizer Corp., Boston, pointed out the big field for sterilizer business in the closing address of this session.

Presiding Tuesday morning was J. P. Leinroth, Public Service Electric & Gas Co., Newark, and chairman of the Advertising Committee. The topic, "What's New in Commercial Gas Appliances," included talks on water heating, cooking, refrigeration and baking. Speakers were Walter G. Groth, United American Bosch Corp., Springfield; Joseph F. Quinn, The Brooklyn Union Gas Co.; Frederick C. Neuls, The Brooklyn Union Gas Co.; and Clayton S. Cronkright, Public Service Electric & Gas Co.

After an informal luncheon the Tuesday afternoon meeting was opened by Daniel C. Brogan, formerly of Consolidated Edison Co. of New York, now sales manager, The G. S. Blodgett Company. He introduced Miss Sybil Stearns, of the New York

## Food Industry Honors A. G. A.



**THOMAS J. GALLAGHER**, representing the Industrial Gas Section, is shown above receiving a desk set from Chicago members of the Food Service Equipment Industry, Inc., at their recent annual meeting at White Sulphur Springs, W. Va. The gift was a token of appreciation of the good relations existing between the two industries. In the picture are, left to right: W. L. Carey, I. S. Anoff, H. Schuham, Mr. Gallagher, A. Janows, R. T. Hodges, G. Estabrooke, W. Winberg and A. Johnson.

The Industrial Gas Section also received

an inscribed certificate from the Food Service industry signifying that the A. G. A. had been placed on the industry's Roll of Honor in recognition of its cooperation. The certificate reads: "Presented to the American Gas Association in recognition of your cooperation with the policies of the Food Service Equipment Industry, Inc., in promoting friendly relations between manufacturers and dealers who (1) carry stocks, (2) maintain a display room, (3) employ a sales organization, (4) extend credit facilities, (5) offer delivery service."

City department of parks, who discussed the commercial gas business on park property operated by concessionaires. She stated that gas is used in every location where it is available and the city owns all fixed equipment including the gas appliances.

Robin A. Bell, Surface Combustion Corp., New York, in an address, "New Approaches to Commercial Heating Sales,"

called attention to the great opportunities in the gas-fired unit heater field. He said that "the commercial field was the new horizon for gas-fired unit heater sales."

The conference closed with a hilarious and instructive sales demonstration skit called "Selling Gas Equipment to a Barber." It was presented by Frederick T. Head and Howard H. Lippe, of the Consolidated Edison Co. of N. Y., and Harry Pere, of The Brooklyn Union Gas Company.

### Industrial & Commercial Advertising for July

The Advertising Committee of the Industrial Gas Section, J. P. Leinroth, chairman, announces that full-page advertisements will appear in the following trade and business magazines during the month of July:

Magazine	Date	Topic
American Hairdresser	July	Gas Hair Dryers
American Restaurant	July	Gas for Commercial Cooking
Bakers Helper	July 23	Improved Bake Ovens
Bakers Weekly	July 16	Improved Bake Ovens
Ceramic Industry	July	Gas in the Ceramic Industry
Food Industries	July	Gas for Heat Processing of Foods
Hotel Management	July	Gas for Commercial Cooking
Heat Treating and Forging	July	Gas for Heat Treating Metals
Industrial Heating	July	Gas for Heat Treating Metals
Iron Age	July 14	Gas for Heat Treating Metals
Metals and Alloys	July	Gas for Heat Treating Metals
Metal Progress	July	Gas for Heat Treating Metals
Steel	July 11	Gas for Heat Treating Metals

### Heads Baking Study



Clinton Cole

**CLINTON B. COLE**, of the Rochester Gas and Electric Corporation, who is chairman of the Wholesale Baking Committee of the Industrial Gas Section, has been one of the most active men heading up Association activities. Under his direction, this committee is reviewing the status of gas in the wholesale baking field and its report will be placed before the industry at the October convention in Atlantic City, N. J.

## Technical Section

J. V. Postles, Chairman

H. W. Hartman, Secretary

F. M. Goodwin, Vice-Chairman

# Measurement of Fuel Size

THE marketing of all domestic solid fuels involves selection, production and maintenance of various sizes. The well-known sizes: Furnace, Egg, Stove, Nut, Range, Pea and Buckwheat do not designate standard sizes. The stove sizes in different localities, for example, often look entirely different. Even for the same fuel in the same locality there often are pronounced differences. The characteristic appearance of each size is determined solely by inspection. Often one just "feels" that the fuel is "off" in size and finds it difficult to explain in just what respect the size is "off."

The necessity of having sizes of the same appearance year after year thus presents peculiar problems. These are compli-

By V. J. ALTIERI

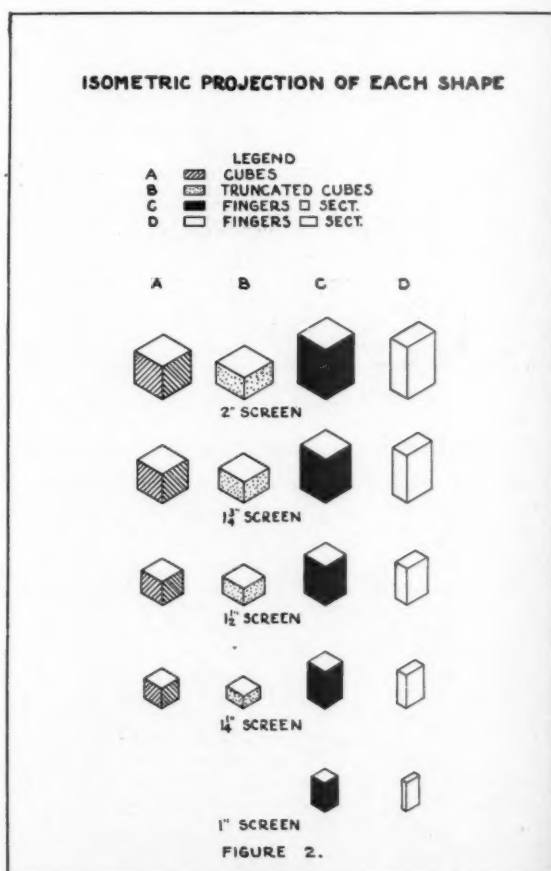
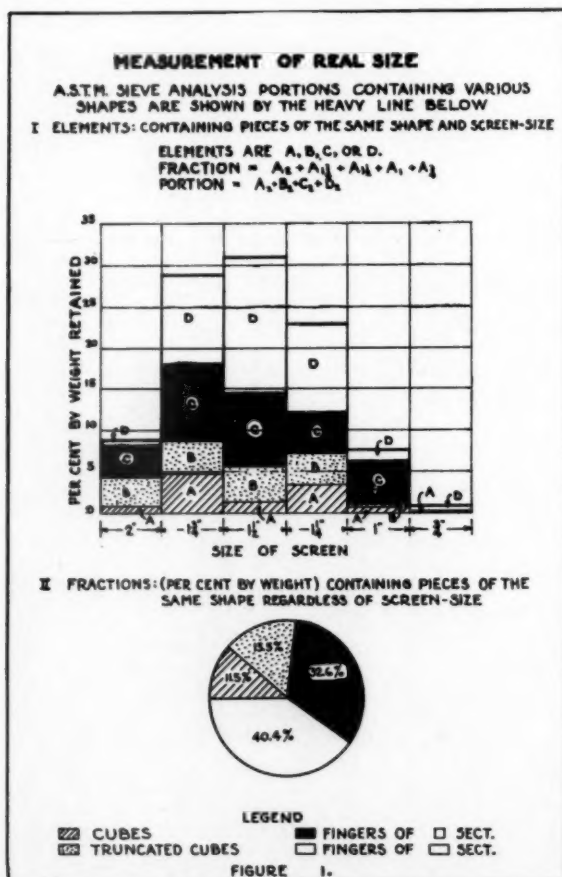
Chief Chemist, Eastern Gas & Fuel Associates, Everett, Mass.

cated by variations in the meaning of the size-names in the same or different localities. This paper introduces a discussion. It submits a method of size measurement to verify the impression of appearance secured by inspection. Domestic cokes receive particular attention.

High-grade domestic cokes will perform well regardless of rather great variations in each size while the performance of some other solid fuels is very much affected by even slight variations. Coke quality and combustion characteristics predominate.

Changes in real size great enough to alter the appearance have little, if any, effect upon performance. Nevertheless, it is desirable to maintain uniformity of appearance, accept criticisms, and adjust operations to produce sizes demanded by the sales department.

Thus, shipments of domestic coke may contain any percentage of oversize or undersize that does not detrimentally affect general appearance. To both the production and the sales departments, "real size" refers to the appearance of coke sold. But the appearance cannot be controlled by standard procedures for sieve analysis of domestic coke. Changes of raw materials, operating conditions, or design of equipment may change the appearance of ship-



ments. The producer then finds it difficult to ascertain what conditions will give the desired product. Even more difficult is the control of operations when the variations are of border-line character. The difficulties are expressed by the question: What is meant by "size"?

### Meaning of "Size," "Screen-Size" and "Real Size"

The dictionary definitions of "size" are informative: "Size" means extent of surface or volume; relative proportions or magnitude. It is a conventional relative measure of dimension. It means bulk, volume, or area. Using it as a verb, it means to adjust according to bulk. And, also from the dictionary, "bulk" implies an object of more or less definite shape, whereas volume applies to that which cannot be considered as having outline, for example, as in a volume of water. These definitions are well known, but it is difficult to relate them to size and appearance of a sized solid fuel.

Clarification of these ideas may be aided by comparing the size of a piece of  $8\frac{1}{2}'' \times 11''$  paper and a pencil. One sheet of paper has a volume of about 0.25 cu.in. A 5-inch pencil also has a volume of 0.25 cu.in. The respective volumes are identical but the real sizes are greatly different. Both conscious and subconscious ideas of size thus are based on a relative measure of all dimensions. Notwithstanding this, standard procedures for sieve analysis are based on measurement of only two dimensions.

Screen-sizing of solid fuels involves "separation of a mixed material of a wide range of sizes into divisions, the individual pieces of which are about the same size, or diameter, or range between maximum and minimum diameters."\* It is recognized also that component pieces "tend to be oval, flat, cubical, tetrahedral, or prismatic, making the real sizes and quantities . . . quite different with different materials." Here, use is made of the terms "size," "screen-size," and "real size."

"Size," as already discussed, means relative bulk when comparing things having the same shape.

"Screen-size" involves naming two screens, the material having passed through one and been retained on another. Sometimes only the average opening is named.

"Real size" refers to the actual size of each component piece in a mass of mixed material, considers shape as well as volume, and is related to the overall appearance of the sized material.

What is the nature of "size" as the word is used with reference to an egg coke? One first observes a sample in its entirety; then there is a tendency to scru-

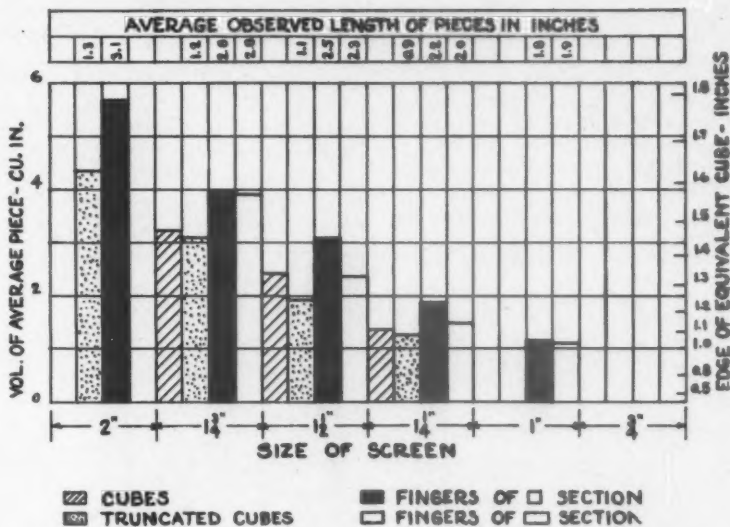


Figure 3—Volume of average piece in cubic inches and edge of equivalent cube

tinize closely, to examine each component piece and groups of pieces and to evaluate the proportion as well as the size of each kind of component piece; but the result is not definite. A screening test is made in accordance with a standard procedure. Let us observe a standard sieve analysis of an egg coke:

Fifty pounds of air-dried fuel is screened through 3", 2½", 2", 1¾", and 1½" square mesh screens respectively. We observe that all passes through 3"; that 6% by weight is retained on 2½", 67% on 2"; 23% on 1¾"; 4% on 1½". In this particular test the screens have not been shaken; each individual piece has been suspended. To observe the various size fractions more closely, these are spread out, side by side, and the following is evident:

1. That the number of coke pieces in any separated portion is not fixed by the weight of the portion. For the same percentage by weight passing through one and retained on the next lower test screen the number of pieces might vary between very wide limits depending upon the real size and shape of the individual pieces.
2. That if some of the fingery pieces on a screen were cut in half to make smaller fingers the latter would still be retained on the screen. For the same percentage by weight on the screen, there would be a much larger number of pieces. The finger pieces have passed through the upper screens only because of the up-ending. One observes that the various fingery pieces are quite different in length and that the other two dimensions also vary considerably.
3. That many pieces are retained on a given screen because of very slight irregularities in the shape of the pieces. Small protuberances may result in much oversize although the oversize is of even less volume per piece than the undersize.
4. One must conclude that this sieve analysis does not evaluate real size unless the pieces in each separated portion are of about the same shape.

### Measurement of Real Size

In the measurement of real size, the terms "portion," "fraction" and "element" are used merely for convenience. All of the fuel passed through one and retained on the next smaller screen is called a "portion." All pieces of similar shape regardless of size constitute a "fraction" of the fuel. All pieces of the same size and also of the same shape constitute "elements" of the fuel.

Figure 1 evaluates the real size of a coke. The A.S.T.M. sieve analysis portions are shown by the heavy lines, the ordinates showing percentage by weight and the abscissas showing the screen-size. The real sizes in each portion are shown as elements containing pieces of the same shape and are marked A, B, C and D. Thus Figure 1 shows the per cent by weight of each screen-size. It also shows the per cent of each shape present in each screen-size. In this coke only four shape-classifications were required:

- A—Cubes  
B—Truncated cubes  
C—Fingers of square cross-section  
D—Fingers of oblong cross-section

The fractions of the coke each containing pieces of the same shape regardless of the screen-size are also shown in Figure 1. It is evident that this sized coke contained 11% cubes, 16% truncated cubes, and 73% fingers; that 33% of the coke was fingers of square cross-section, and 40% fingers of oblong cross-section.

This measurement of real size involves separation into various portions as a result of screening by hand through a succession of test-screens. Each portion, passed through one screen and retained on the next lower screen, contains pieces of the same screen-size, although the individual pieces differ very much in shape. These

\* E. A. Holbrook and T. Fraser, Bureau of Mines Bulletin 234, "Screen Sizing of Coal, Ores, and Other Minerals."

portions when separated according to shape are converted into elements containing pieces of about the same size and shape. Or the fuel may be separated first into fractions containing a common shape and subsequent screen-sizing of the fractions will produce the elements.

The character of each element is further determined by data as follows:

1. Cubic inches of volume of average piece.
2. Weight of 100 average pieces.
3. Edge of cube having the same volume as the average piece.
4. Average observed length of pieces.
5. Number of pieces per ton of coke.
6. Number of pieces in each element as percentage of total pieces in sample.

Figure 3 shows the cubic inches volume of the average piece in each element and also shows the edge of the equivalent cube as ordinates. Abscissas show the screen-size for each element. The average observed length of pieces is shown numerically above each bar. It is interesting to compare the observed length with the edge of equivalent cubes. These were determined by water displacement tests and no doubt are an index of shape characteristics.

Figure 4 shows the distribution of shapes and sizes in a stove coke. Each bar shows the number of pieces of each shape and of screen-size as shown at the bottom of the

chart. Ordinates show the number of pieces in each element as a percentage of all the pieces in the sample. The weight of 100 average pieces is shown numerically at the top of each bar. A table in the upper right-hand corner shows the number of pieces per ton as well as the percentage of all pieces separated into cubes, truncated cubes and fingers.

#### Conclusion

Measurement of real size and its correlation with appearance is aided by a process of analysis and synthesis. Analysis into component parts or elements enables one to describe and visualize the elementary components of the fuel. The relations among screen-size, real size and appearance can then be ascertained by combining various elements in different proportions, thus prepare samples of known composition, and by inspection determine their relation to appearance.

#### Acknowledgment

Acknowledgment is made of work done by M. C. Cryan and A. E. Sands on compilation and analysis of the data presented; and of advice and assistance secured from numerous members of the personnel of Eastern Gas and Fuel Associates, Everett, Mass.

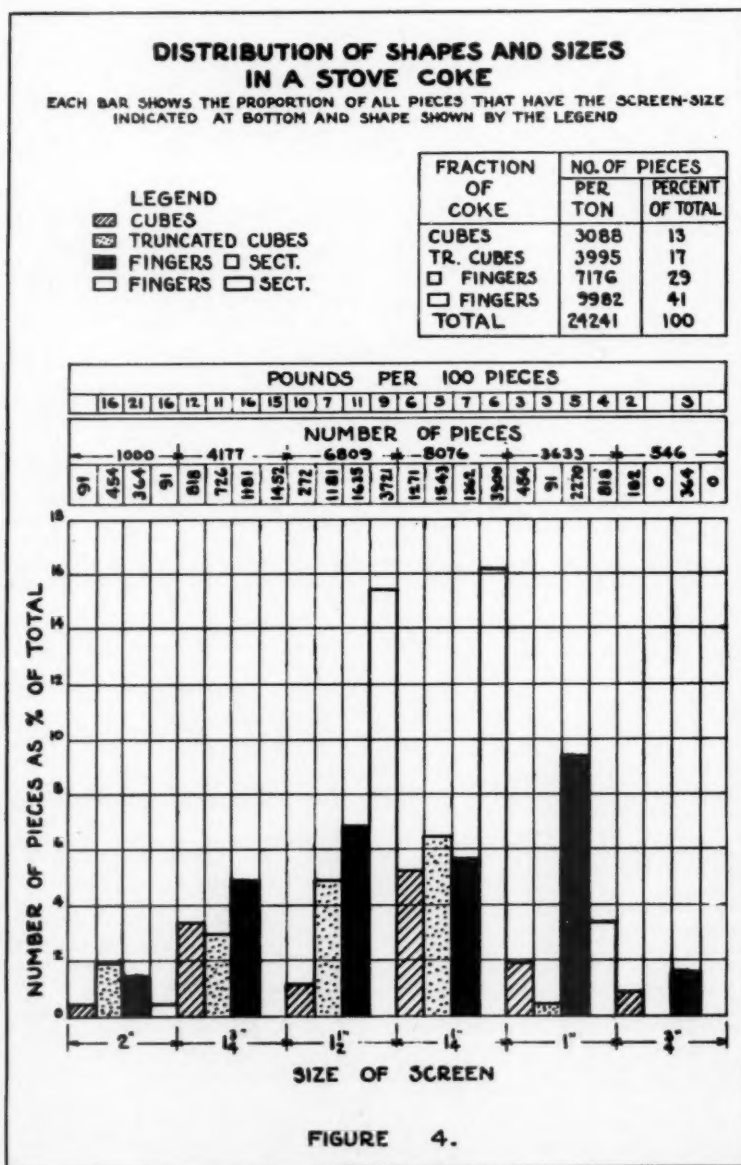
#### O. B. Evans Retires

**O.** B. EVANS, engineer of works of The Philadelphia Gas Works Company, retired from active service July 1. He is an outstanding gas engineer, having contributed valuable papers and reports to many Association meetings. In 1913 he was awarded the Beal Medal for contributing the best technical paper during the previous year.

Mr. Evans joined the Philadelphia Gas Works division of The United Gas Improvement Co. in 1904 after graduating with honors from the University of Pennsylvania. He progressed until, in 1934, he was made engineer of works. He is known as a thorough and careful operator.

#### Cooperative Maryland Fellowships

**A**PPPOINTMENT of Earl Thomas Hayes, of Mullan, Idaho, Carl Kerby Stoddard, of Reno, Nevada, Arthur Russell Taylor Denues, of Pittsburgh, Pennsylvania, and Francis Miles Bower, of Mt. Rainier, Maryland, to cooperative fellowships at the University of Maryland was announced June 22 by Dr. John W. Finch, director of the Bureau of Mines, United States Department of the Interior, and Dr. H. C. Byrd, president of the University of Maryland.



## Production and Chemical Men Review Operating Problems



King Photos

Speakers at the first afternoon session of the conference. Left to right: R. J. Sheridan, Dr. J. R. Skeen, Prof. J. J. Morgan and C. R. Locke, co-chairmen of the conference, and H. J. Wiedenbeck

**O**UTSTANDING contributions to the chemical and technical knowledge of the gas industry were made at the joint conference of the Production and Chemical Committees sponsored by the Technical Section of the Association. The conference was held May 23-25 in New York under the leadership of C. R. Locke, of Chicago, chairman of the Gas Production Committee, and Prof. J. J. Morgan, of Columbia University, chairman of the Chemical Committee.

### Beebee's Paper Outstanding

The high spot of the entire conference was the comprehensive presentation of A. M. Beebee, Rochester Gas and Electric Corp., entitled "Time Marches On—Where Is Manufactured Gas Marching?" In a masterly fashion, Mr. Beebee reviewed the economic factors affecting the manufactured gas industry and concluded that "manufactured gas has a very definite place in modern streamlined America."

Mr. Beebee referred to his previous paper "Economics of Energy Distribution," presented at the 1936 Distribution Conference, and also to the recent studies carried on by the Rochester company which have been reported at various meetings by Herman Russell, R. E. Ginna and himself. These studies have produced much significant and heartening material on the gas industry's economic position.

He pointed to possible economies in gas production which might improve the gas industry's competitive position and also discussed the gas market. In support of his contention that manufactured gas, contrary to the general impression, was not losing ground, Mr. Beebee cited figures showing that total manufactured gas sales have increased every year for the

last four years. Three of these four years showed a gain in revenue. A further analysis and breakdown of these figures by Mr. Beebee brought most interesting results. His complete paper is available at Association headquarters.

Other important papers presented at the conference covered a variety of technical subjects. Space does not permit discussion of these papers here, but many of them have been featured in the gas trade press. Following is a list of the papers presented:

Phases of Holder Operation and Maintenance—C. S. Goldsmith

Microchemistry in the Gas Industry—R. J. Sheridan

A Review of Certain Methods Practiced in the Mixing of Gases—H. J. Wiedenbeck

Chemical Aspects of Carboseal—John R. Skeen

Symposium on Expansion of and Plastic Deformation of Coal—V. J. Altieri, J. D. Davis, C. C. Russell

(Continued on page 287)



R. L. Ellis, of Miami, Florida (back to camera), expounding a new theory to a group of well-known operating men



Purging Committee and conferees. Left to right, front row: J. V. G. Postles, John B. Klumpp, chairman, Fred M. Goodwin. Second row: C. S. Goldsmith, L. B. Eichengreen, A. M. Beebee, Karl B. Nagler. Third row: L. J. Willien, R. E. Kruger, L. Shnidman, P. T. Dashiell, E. L. Griffith, A. Gordon King

## Testing Laboratories

R. M. Conner, Director

Chairman Managing Committee, N. T. Sellman

# Tentative Requirements Drafted for Commercial Cooking Equipment

Other Requirements Expanded To Permit Approval of Appliances with Butane and Butane-Propane Mixtures

**M**EETINGS of seven requirements committees have been held recently at which time action was taken on many subjects of interest to the industry. Probably the most significant move was the adoption of tentative requirements for various types of additional commercial gas cooking equipment. These include approval standards for portable baking and roasting ovens, deep fat fryers and various types of counter appliances such as toasters, coffee brewers, coffee urns, and waffle irons.

### *Portable Baking and Roasting Ovens*

The Subcommittee on Approval Requirements for Portable Gas Baking and Roasting Ovens, with C. H. Lekberg, Northern Indiana Public Service Company, as chairman, drafted a complete set of tentative requirements covering various types of portable baking and roasting ovens, not only for use with various types of city gases, but also for use with butane, propane and mixtures of these, as well as butane-air gas.

These requirements are intended to cover single and multiple section roasting ovens as well as various types of portable baking ovens. Included among the baking ovens to be covered by requirements are those of the cabinet and reel types as well as others of a size which are manufactured and shipped as complete units. The committee, of course, considered it impractical to attempt to cover large traveling ovens employed in wholesale bakeries.

In order that the committee might be certain that the requirements tentatively adopted are entirely practical and to secure further information on the performance characteristics of various types and makes of both roasting and baking ovens, the Testing Laboratories were instructed to secure representative models and makes of such equipment and test them in accordance with the requirements prepared. The committee will consider, therefore, at its next meeting the results of the Laboratories' studies with the aim in view of preparing tentative requirements for publication in final form and distribution for criticism. It is hoped that conditions will permit completion of the investigational work so that the requirements may be available in tentative printed form for criticism the early part of next year.

By FRANKLIN R. WRIGHT

A. G. A. Testing Laboratories

### *Counter Appliances*

The Subcommittee on Approval Requirements for Gas Counter Appliances, which is headed by J. F. Quinn, of The Brooklyn Union Gas Company, held its initial meeting at the Laboratories in Cleveland on May 4 and 5. Tentative requirements were adopted at this meeting covering gas-heated toasters, gas coffee brewers and coffee urns, gas waffle bakers, gas-heated steam tables, dish heaters, roll warmers and bain maries.

In the development of these requirements, the committee is to be guided by the results of development and research work now under way for the Committee on Industrial Gas Research headed by F. J. Rutledge. Mr. Quinn's committee was unanimously of the opinion that the requirements tentatively adopted would in no way conflict with the research now in progress. As a matter of fact, it was felt that both programs would supplement one another.

The tentative requirements adopted will, in the normal course of events, not become effective until January 1, 1940, at the earliest. Furthermore, as with all approval and listing requirements, they are continuously subject to change as progress is made in the development of new appliances and controls.

The subcommittee concerned, as is the case with all other requirements groups, is a standing committee whose duties are continuing year after year. The requirements program is sufficiently flexible to permit the prompt revision or modification of requirements when conditions arise or new products are developed which make such revisions desirable in the interests of the industry.

The gas counter appliance subcommittee took action similar to that referred to above on portable baking and roasting ovens and instructed the Laboratories to procure representative types and makes of all gas counter appliances concerned and conduct tests on them in accordance with the requirements tentatively adopted. Furthermore, certain additional investigational

work was requested in order that the committee may have in its hands at the next meeting complete data covering the design and performance characteristics of contemporary equipment. Upon the completion of these studies, the committee will again meet to review the Laboratories' reports with the aim of preparing requirements in tentative form for distribution to the industry for criticism.

In addition to the foregoing, the counter appliance committee also decided to draft requirements for commercial hot plates and griddles, as well as a set of standards covering miscellaneous commercial kitchen equipment such as gas-fired sterilizers, confectionery stoves, etc.

### *Deep Fat Fryers, Counter Fryers and Unit Broilers*

At its meeting on May 6 and 7, the Subcommittee on Approval Requirements for Hotel and Restaurant Ranges, Deep Fat Fryers and Unit Broilers, headed by T. J. Gallagher of The Peoples Gas Light and Coke Company, Chicago, drafted an initial set of standards for deep fat fryers and counter fryers. This group also extended the scope of its requirements for hotel and restaurant ranges to cover unit broilers. In addition, all of the requirements under the jurisdiction of this body were expanded to permit the approval of appliances when operating not only on city gases, propane and butane-air gases, but also on undiluted butane and mixtures of butane and propane.

Requirements for deep fat fryers as well as the other standards referred to previously are of the same general form and scope as those for hotel and restaurant ranges and other appliances for which approval standards have been developed in the past. It is expected that the requirements for deep fat fryers as well as the revised requirements for hotel and restaurant ranges and unit broilers will be completed to become effective January 1, 1940.

Before taking final action the committee instructed the Laboratories to conduct tests on representative models of the appliances concerned, in line with the tentative requirements adopted, and present its findings to the committee at its next meeting which will probably be held sometime the

latter part of this year. Following that time, the two sets of requirements concerned will be published in tentative form and distributed to the industry for criticism.

#### Gas Water Heating Equipment

Meetings were also held recently of the Subcommittees on Approval Requirements for Domestic Gas Ranges, Approval Requirements for Gas Water Heaters, and Approval Requirements for Central Heating Gas Appliances, which are headed respectively by C. C. Winterstein, The United Gas Improvement Company, Philadelphia; E. J. Horton, Ruud Manufacturing Company, Pittsburgh, and B. A. Johnson, The Peoples Gas Light and Coke Company, Chicago.

The water heater subcommittee reviewed comments and criticisms received from the industry on proposed revisions to the Approval Requirements for Gas Water Heaters and to the Listing Requirements for Gas Water Heating Units Without Water-Carrying Parts. In addition, the committee reviewed the report of the Laboratories' investigation of the performance of water heaters when operating on undiluted butane gas and mixtures of butane and propane.

The two sets of standards concerned were modified to cover in addition to appliances for use with city gases, propane and butane-air gases, the approval of appliances for use with undiluted butane and mixtures of butane and propane. The revised edition of the standards as completed by the subcommittee and approved by the General Requirements Committee on July 7 will become effective January 1, 1939.

Within the past year or two, the use of undiluted butane and mixtures of butane and propane in rural communities has assumed important significance and the demand for approved appliances for use with such gases has greatly increased. In recognition of this trend, early last year steps were taken by the appropriate committees to secure, through Laboratories' investigations, data on which the standards for domestic ranges, water heaters, space heaters, refrigerators and other equipment could be expanded to cover appliances for use with such gases.

It is significant to note that the studies which have been made disclose that by substituting butane for propane as the test



*Subcommittee on Approval Requirements for Gas Counter Appliances at a meeting in Cleveland. Left to right: L. O. Howell, W. M. Jacobs, J. A. Tallant, H. E. Haby, J. F. Quinn, chairman, H. S. Walter, F. R. Wright, R. L. Melaney, T. J. Gallagher, and George B. Shaw*

gas, approval can be given upon appliances for use with either of these gases or mixtures of the same. Where different burner equipment is supplied by the manufacturer for these different gases, separate tests on each gas would, of course, have to be applied. Where only changes in orifices, however, are required to convert appliances from butane to propane or to butane-propane mixtures, it will be possible to extend approval to the other gases from the tests with undiluted butane.

#### Boilers and Furnaces

The central heating gas appliance subcommittee, which is in charge of approval standards for domestic heating boilers, furnaces and floor furnaces, recently completed a revised edition of its requirements. The requirements prepared by this group were endorsed by the A.S.A. Sectional Committee, Project Z21, A. G. A. Approval Requirements Committee, at the July 7-8 meeting of that group. The subcommittee considered the comments and criticisms submitted on the printed recommended revisions distributed for criticism some time ago.

One of the more important revisions made in the approval requirements, as a result of the last meeting, involves a change to permit the location of manual main control valves in any position relative to the control devices and the gas pressure regulator which the manufacturer of the appliance may select. In addition, a differentiation was made in the static pressure

imposed at the warm air outlet from furnaces during the efficiency tests, based upon the size and capacity of the appliance concerned. In the case of large furnaces, a static pressure of 0.2 inch is imposed to offset the effects of duct pressure losses when the furnace is installed in the home. In the case of smaller appliances this static pressure was reduced to 0.125 inch water column.

In the revised edition of the standards which will become effective January 1, 1939, separate tests are imposed for determining the efficiency of gravity type and fan type furnaces. Under the revised test for fan type furnaces, such appliances are required to deliver air at the manufacturer's hourly B.t.u. input rating at a temperature between the limits of 70° F. and 100° F. above room temperature when operating against a static pressure of 0.2 inch water column in the case of larger furnaces, and 0.125 inch for smaller furnaces. A similar test is to be applied under the revised standards for fan type floor furnaces except that the imposition of a static pressure at the warm air outlet is to be omitted.

One of the most significant changes made in the revised requirements for central heating gas appliances from the standpoint of the manufacturers is the one which now permits the use of different size controls for manufactured gas and for mixed and natural gases. Because of the desirability of having this change made effective as soon as possible, it was cleared through the A.S.A. Sectional Committee, Project Z21, A. G. A. Approval Requirements Committee, and was made effective as of June 1, 1938.

It may also be of interest to note that the basic efficiency requirement for fan type warm air furnaces was increased last year by the subcommittee from 70 to 75% and for fan type floor furnaces from 65 to 70%. These revisions were adopted late last year by the General Requirements Committee and became effective January 1, 1938. These revised requirements will appear in the next edition of the standards which is to be published late this year.

#### Domestic Gas Ranges

Several changes were made in the approval requirements for domestic gas ranges



*Subcommittee on Approval Requirements for Hotel and Restaurant Ranges, Deep Fat Fryers and Unit Broilers. Left to right: W. H. Guenther, I. V. Brumbaugh, Lee Van Cleave, G. S. Morley, W. M. Jacobs, Frank H. Trembley, Jr., W. D. Antrim, T. J. Gallagher, chairman, F. R. Wright, R. M. Conner, H. W. Carnes, H. S. Walter, H. E. Haby, Eugene Pitman, R. L. Melaney, and I. Lundgaard*

at the last meeting of the subcommittee in charge of these requirements. These revisions must, of course, be endorsed by the A. G. A. Approval Requirements Committee before becoming final. Among them was the strengthening of the requirement specifying allowable oven surface temperature rise on insulated gas range ovens to insure cooler surfaces. An investigation by our Laboratories for the committee indicated that contemporary ranges are capable of meeting more stringent requirements from that standpoint than those now specified. Another item of interest relates to various changes in the requirements concerning the performance of ovens whereby the temperature for the purpose of the test was reduced from a 500° to 400° F. basis.

A number of other revisions to the domestic range requirements have been made at recent meetings of the subcommittee concerned, all of which will be published and distributed for criticism later this year. It is expected that at least one other meeting of the subcommittee will be required before the revised edition of the requirements is ready to be published for criticism.

#### *Clothes Dryer Requirements*

A new edition of the American Standard Approval Requirements for Gas Clothes Dryers was completed late in May by the interested subcommittee, which is headed by C. H. Light, The Peoples Gas Light and Coke Company, Chicago. These standards were also endorsed by the A.S.A. Sectional Committee, Project Z21, A. G. A. Approval Requirements Committee and will become effective on January 1 next.

The latest edition of the clothes dryer standards has been expanded to a considerable degree to correlate the approval requirements with the various listing requirements for gas appliance accessories. In addition, requirements have been added covering appliances for use with butane, propane, butane-air and mixtures of butane and propane, in addition to the regular city gases.

Probably the most significant revisions to the clothes dryer requirements were those made to permit the approval of unvented clothes dryers. Heretofore, only clothes dryers of the indirect type were permitted approval. It was felt, however, that with proper safeguards covering combustion and other factors, the use of unvented clothes dryers would be entirely satisfactory. In line with this decision, the combustion requirements for unvented clothes dryers were made more rigid and now conform with the combustion requirements specified for gas space heaters, including not only tests under normal room atmospheric conditions, but also tests in a 1,000 cubic foot air-tight room.

#### *Modifications to Other Standards*

A meeting of the Subcommittee on Listing Requirements for Semi-Rigid Gas Appliance Tubing and Fittings, under the leadership of C. B. Wilson of the Arkansas Louisiana Gas Company, Little Rock, Arkansas, was held in New Orleans, Lou-

isiana, on May 10, at which time consideration was given to a number of factors relating to the standards for semi-rigid tubing and fittings. One of the important considerations was that of proper identification of tubing and fittings which have been tested and found to comply with the listing requirements. At present all certified gas appliance accessories are required to be marked with the Laboratory Listing Symbol which consists of the letters AGA.

Recent action was taken by the General Committee to change the title of the requirements covering flexible gas tubing from approval to listing standards, and to change the form of official marking for such equipment which has been tested and certified, from the special Laboratory Approval Seal for Flexible Gas Tubing to the standard Laboratory Listing Symbol such as is used on all other types of gas appliance accessories. The Listing Symbol as used on flexible gas tubing will, of course, in addition to the letters AGA carry the manufacturer's number for the tubing and the date of certification by our Laboratories. The subcommittee concerned, which is

headed by G. F. Thomas of the Consolidated Edison Company of New York, Inc., New York City, recently made appropriate changes in its requirements to provide for listing rather than the approval of flexible gas tubing. These standards which were also approved at the July 7-8 meeting of the Approval Requirements Committee will become effective January 1, 1939.

All requirements relating to accessories, with the exception of those applying to flexible gas tubing, are at present known as listing requirements while all those relating to gas appliances, with the one exception noted, are known as approval requirements. A discussion of the distinction between these will be found in the paper entitled, "The Purposes and Development of A. G. A. Listing Requirements and Their Relation to Approval Requirements for Gas Appliances," prepared by the author of this article and published in the December, 1934, issue of the American Gas Association MONTHLY. Reprints of this article are available from the American Gas Association Testing Laboratories, 1032 East 62nd Street, Cleveland, Ohio.

## Couzens Leaves A. G. A. July 1, Teller Heads Research Dept.



W. M. Couzens

**W.** M. COUZENS, research engineer of the A. G. A. Testing Laboratories, has announced his resignation from the Laboratories, effective July 1. He is to become associated with Gaffers and Sattler in Los Angeles, one of the largest producers of gas appliances

on the Pacific Coast.

During the twelve years Mr. Couzens has been connected with the gas industry he has gained the friendship of numerous gas men in the appliance and utility fields. In appreciation of his long outstanding service, and as an expression of best wishes for success in his new venture, Mr. Couzens' associates at the Laboratories tendered him a farewell dinner on June 6 at the Fenway Hotel in Cleveland. At that time he was presented with an auto radio by the entire staff and with another gift by the men in his department.

Mr. Couzens first joined the Laboratories in 1926. In December, 1933, he resigned to become affiliated with Grayson Heat Control Ltd. of Lynwood, Calif. He returned to the Testing Laboratories in 1936 as assistant chief engineer in which capacity he directly supervised testing activities. On the first of the following year he was again appointed head of the research de-

partment, a position which he has occupied since that time.

Mr. Couzens' duties as research engineer will be taken over by W. R. Teller who has been assistant research engineer for several years. Mr. Teller, a graduate in Mechanical Engineering from Case School of Applied Science, joined the Laboratories in 1930.

During the past eight years he has had experience in every department of the Laboratories including testing, field inspections and requirements committee activities. Not only has he had extensive direct experience in conducting research in practically all phases of gas utilization but for several years, under both Messrs. Suffron and Couzens, actively supervised all research activities at the Laboratories.

Through his experience and contact with mixed gas research work, he has become an authority on the technical aspects of gas mixing and has assisted several member utility companies in the solution of their problems along this line. Having a keen engineering mind coupled with seasoned experience in investigational work, he should ably carry out the responsibilities of his new position.



W. R. Teller

**NATIONAL ADVERTISING PLANS**

(Continued from page 247)

pers. To get a full return on your investment, identify your company with the campaign, utilizing as much of the national sales promotion material as you can and producing other material on your own initiative.

Ideas, suggestions, criticisms—all will be welcomed by your regional representative on the national committee. If you have executed a successful tie-in job, or have staged a campaign built around the national drive, give the facts to your representative so that the information may be passed on to the other companies.

The gas industry today is more promotionally alert and aggressive than ever. With your continued cooperation there is every reason to anticipate that the 1938-39 campaign will be the most resultful so far.

**EMPLOYEE SUGGESTION SYSTEM**

(Continued from page 258)

dreds of suggestions which do not reach the Auditing Department—suggestions that not only reflect actual money savings, but which are of value in promoting good will, better customer contacts, smoother routines, safety measures, and improved morale.

In short, the Suggestion System of the gas company demonstrates the truth of its slogan:

The fundamentals of a Successful Suggestion System are embodied in—

- (a) An Assertion; (b) A Query;
- (c) An Answer—
- (a) "There's a better way to do it!"
- (b) "Do what?"
- (c) "Anything!"

Every employee who takes part in the suggestion activities should be inspired by this incentive.

**HARTFORD ALL-GAS HOME**

(Continued from page 261)

Nothing has been omitted to make ours a perfect home."

A Cape Cod Colonial, the all-gas home, contains eight rooms, a recreation room and a two-car garage. The kitchen, with many unusual features, really lives up to its name of America's Number 1 All-Gas Home. The appliances and working surfaces are arranged for maximum convenience.

A built-in breakfast nook is also provided as well as a ventilating fan to carry off kitchen odors. The gas range which is of latest automatic design, is built flush to the wall and is an integral part of the kitchen cabinet work. Also found in the kitchen is the silent, efficient gas refrigerator.

Automatic gas heat, distributed from concealed radiators, and gas water heating complete the use of gas for the four big jobs.

In keeping with the cleanliness and convenience of gas for automatic heat, gas fireplace heaters have been provided for the living room and recreation room fireplaces. In the basement is found a modern laundry equipped with a gas-heated motor-driven ironer and a modern gas-heated laundry dryer.

**PRODUCTION AND CHEMICAL CONFERENCE**

(Continued from page 283)

Practical Results in Primary Phosphate Treatment of Boiler Feed Water—Lee Robey and Marlowe Perry  
The Manufacture of High B.t.u. Carburetted Water Gas—H. Vittinghoff  
Flames and Flame Velocities: Applied Aspects—A. R. T. Denués  
The Anticipation of Coke Plant Accidents—Charles Koons  
Foundry Coke: An Interpretative Discussion—B. P. Mulcahy  
Methods of the Determination of the Specific Gravity of Gas—C. W. Wilson  
Trends in Coal Expansion—W. T. Brown

A feature of the conference was the series of roundtable luncheon meetings, Tuesday, which brought out spirited discussions. They were divided into three sections—Coal Carbonization and By-Products, Water Gas Operation, and Chemical Aids in Operating Problems.

**HOME SERVICE CONFERENCE**

(Continued from page 274)

program and contest of the Whitehead Metal Products Co.

The story of the A. G. A. Laboratories, through the use of slides, was of interest to the group as outlined by Dr. F. E. Vanderveer of Cleveland. Arranged on display were examples of Laboratory approval requirements and copies of the booklet "Do You Know?"

Excellent cooperation in the conduct of the conference was given by the manufacturers of gas equipment. A "get-acquainted" dinner on Tuesday evening, presented with the compliments of the Association of Gas Appliance and Equipment Manufacturers, opened the week's entertainment features. At this dinner W. E. Derwent, of the George D. Roper

Corporation, acted as host in his capacity as a director of that Association. The program featured Tom Collins, Sunday editor of the Kansas City Journal Post.

On Thursday evening another dinner was presented to the group by Servel, Inc., opening with the "March of Time" broadcast which is sponsored by this Company. Variety acts provided interesting entertainment.

During a conference recess period each morning and afternoon refreshments were served through the courtesy of the American Stove Company, Detroit Michigan Stove Co. and the George D. Roper Corporation. "Flowery" compliments, in the form of gardenias, were presented by the Bryant Heater Co. during the opening registration.

Through the entire conference program continual appreciation was expressed for the genuine Western hospitality provided by all members of the Kansas City Gas Co. and The Gas Service Co. F. M. Rosenkrans, of the Gas Service Co., was in charge of local arrangements. The setting up of the display kitchen with different gas equipment each day was taken care of by the Kansas City Gas Co. Home service girls of the two companies (and there were eighteen of them) assisted in too many ways to enumerate.

In her closing remarks on the subject, "You've Heard This—Let's Go," Mildred Clark, chairman of the Home Service Committee, and supervisor of home service in The Oklahoma Natural Gas Company, expressed the thanks of the committee members to all the local representatives.

**Brundage Heads Lions**

H. M. Brundage, Jr. (left), general sales manager of the Washington Gas Light Company, who has just been elected president of the Lions Club of Washington, D. C. Mr. Brundage has gained wide recognition in gas circles as leader of the sales organization which has won or placed in no less than six national sales contests in the last 3 years. Mr. Brundage succeeds Walter K. Handy (right), of the Potomac Electric Power Company who led the Lions last year.

## Power Conference in Vienna



John C. Parker

**JOHN W. SCOTT**, Commissioner of the Federal Power Commission, has been appointed by the President as chairman of the delegation of the United States to the sectional meeting of the World Power Conference to be held at Vienna, August 25 to September 2, 1938.

The papers and discussions will deal principally with the supply of energy for agriculture, small-scale industries, household purposes, public lighting and electric railways.

Sessions will be held in the Konzerthaus, where the official banquet will be held the evening of August 26. Receptions will be given by the Mayor of Vienna on August 30, and by the Government in the Ceremonial Rooms of the Imperial Palace on August 31.

The American Gas Association has forwarded papers prepared by N. T. Sellman, assistant vice-president, Consolidated Edison Company of New York; Eugene D. Milener and C. George Segeler of A. G. A. Headquarters staff. Mr. Sellman's paper is entitled "Gas for Household Purposes." Messrs. Milener and Segeler wrote Parts I and II respectively of the paper entitled, "Gas for Small Scale Industries."

American participation in the Conference is being handled through John C. Parker, vice-president, Consolidated Edison Company of New York, who is treasurer and secretary of the Executive Committee of the United States National Committee (World Power Conference).

## Mystery Chef Radio Program Extended

**C**ONTRACTS have been signed with the National Broadcasting Company, McCann-Erickson, Inc., and the Mystery Chef for a continuation of the Mystery Chef radio program to November 24, 1938.

Fifty-two companies having in service 3,419,673 meters have signed up for the program for the continued six months' period. These companies are located in Connecticut, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, California, Oregon, Utah and Washington. The facilities of the following NBC stations will be used to broadcast the program: WEA, New York; WEAN, Providence; WTAG, Worcester; WCSH, Portland; KYW, Philadelphia; WBAL, Baltimore; WGY, Schenectady; WTAM,

Cleveland; KDYL, Salt Lake City; KFI, Los Angeles; KGW, Portland; KOMO, Seattle.

Since the inauguration of the program two and one half years ago, participating companies have ordered and distributed through their offices to customers more than 2,200,000 copies of the recipe book entitled "Be an Artist at the Gas Range" and more than 625,000 pamphlets containing twenty-seven additional recipes by the Chef. This latter pamphlet was made available less than one year ago. Total copies of the recipe book printed to date are 2,400,000.

Offices of Regional Advertisers, Inc., are, President, N. T. Sellman, asst. vice-president, Consolidated Edison Co. of New York; Treasurer, Hugh H. Cuthrell, vice-president, The Brooklyn Union Gas Com-

pany; Secretary, Charles W. Person, director of publicity and advertising, American Gas Association.

## Laboratories Mixed

**I**N an article on page 225, June issue, A. G. A. MONTHLY, in reference to award of the Walton Clark Medal to R. B. Harper, it was stated erroneously that the research and testing laboratory referred to in the citation was the A. G. A. Testing Laboratory. This statement was an error as the citation had in mind the research and testing laboratories of The Peoples Gas Light and Coke Company of which Mr. Harper is vice-president.

# Personnel Service

## SERVICES OFFERED

**Supervision or Sales Engineer**—very familiar with the many phases of domestic, industrial, commercial and househeating sales work. Have supervised sales, surveys, installations and trained men. Want to make a permanent connection with a utility or appliance manufacturing company. 1196.

**Gas Engineer**—technical graduate with over fifteen years' broad experience in gas industry as foreman, engineer, and superintendent of operating companies and gas engineer of large holding company. All phases of plant and distribution operation. 1206.

**Graduate Gas Engineer**, experienced in distribution problems, pressure regulation, corrosion problems, gums, etc. Also experienced in house heating and commercial heating including heating estimates, equipment selection, complaint work, trouble correction, balancing of warm air systems and regular engineering inspection. 1207.

**Gas Engineer**, over 6 years' experience in high and low pressure transmission and distribution practice, designs, physical and chemical research; recent experience in rate case work. Familiar with water gas manufacture. Previous 5 years' experience as sanitary engineer. Graduate; licensed (34). 1208.

**Experienced manufacturer's Salesman**—for national distribution of products used in distribution and application of gas. 14 years with well known firms handling appliances, pipe fittings and air conditioning equipment as salesman and sales manager. 1209.

**Twenty years' broad auditing and accounting** experience in varied lines including five years with large combination property, plus special courses in accountancy, at disposal of manufacturer of gas and electric equipment or gas and electric corporation. Public work has rounded out customary utility experience. 1210.

**Secretary-stenographer**, (male) extensive experience, exceptional qualifications, sales-minded, desires position with manufacturer or utility in secretarial or stenographic capacity or as sales representative. Available now anywhere, single (34). 1211.

**Mechanical Engineer**, twenty years' experience **designing** both domestic and industrial **gas burning equipment**; past seven years has been devoted to design and development of commercial air-conditioning equipment and development of automatic emergency lighting and power units. Prefer to locate in Pennsylvania, New York or New England district. 1212.

## SERVICES OFFERED

As salesmanager, salesman, purchasing agent, or factory representative. Twenty-three years' experience in clerical, distribution, sales, sales manager; with three largest companies in greater New York. 1213.

**Private Secretary**, (woman) engineering training, twenty years' experience in engineering research, construction, management and personnel; can make statistical and legislative studies, bibliographies, library research; technical and general translations from and into Spanish, knowledge Portuguese. Interested in making permanent connection with definite future. 1214.

**Salesman** desires connection with reputable firm or public utility selling automatic gas water heaters. Have had considerable experience this line and can produce under proper conditions and supervision. Familiar with most popular makes of heaters. Understand importance making consistent and complete home surveys. Appreciate interview if interested. 1215.

**Gas Sales Engineer**—one and a half years' sizing, pricing, and selling gas equipment for space heating, refrigeration, water heating, food preparation, etc. to commercial establishments; three years' stock control experience; telephone and gas utility planning; (M.E. 1929) knowledge business through university extension courses. 1216.

Single man wants **sales supervisory** position with utility or as manufacturer's representative. Experience includes one year with refrigerator manufacturer, four and a half years' refrigeration sales supervisor with a utility company, seven years' manufacturer's representative calling on utility accounts. Willing to locate anywhere. (38). 1217.

**Development Engineer**, graduate mechanical engineer (28), several years' experience in practical combustion work, including test, inspection, and development work on all types of industrial and domestic gas burning equipment. Familiar with propane, air-butane, natural and manufactured gas. 1218.

## POSITIONS OPEN

We require the services of some men who have been successful at **gas holder inspection**, supervision of major gas holder repair work or the erection of gas holders. We are one of the largest and most progressive gas holder manufacturers in this country. Applications must give age, experience, references, education and any other information of importance. Applications kept confidential if desired. 0334.

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